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**THE PUBLIC'S KNOWLEDGE ABOUT
ORAL HYGIENE AIDS
AND THE AVAILABILITY OF SUCH PRODUCTS**

Advisors:

Dr. E. Schwarz
Dr. F. Yu

Group 5.6:

CHAN Kam Sau, Echo
CHEUNG Siu Yu
LEE Dae Hyun
LEE Ka Leung
LO Chi Keung
TAM Kwok Wai
YAU Matthew

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1. ABSTRACT

The aim of the project was to study the knowledge of the public on how to choose and use home care oral hygiene aids including the sources of their knowledge. Further, to study the information strategies of the manufacturers of oral hygiene products directed at the public, and to assess the availability of the different products in the market. Three methodologies were used to gather information to reach the aims: A telephone interview with a representative sample of households, interviews with selected dental product companies, and a field trip to selected shops selling oral hygiene aids. A total of 490 persons were interviewed of whom more than 50% were 25-44 years old and most had secondary or higher education. Almost all respondents reported to have toothbrush, toothpaste, and toothpicks at home, whereas less than 1/3 had or used mouthrinse and dental floss. The favourite brand of toothbrushes were Oral B, Johnson & Johnson, Colgate, and Darlie, and texture was considered as the most important factor when choosing a toothbrush. Colgate and Darlie were the two preferred brands of toothpaste; factors such as cleaning ability and taste were more important than fluoride content and other factors. Rather few respondents associated use of oral hygiene aids with the prevention of oral diseases. Only about 1/3 felt that they were well informed concerning oral health products and their function. Most information came from the media.

Interviews with 4 dental product companies revealed various information and marketing strategies. Most companies claimed that they had provided education to the public through for instance pamphlets and posters. English language on the packages was claimed to give the products a higher profile. During field trips 42 different shops in 7 districts in all Hong Kong were investigated and the availability of the different oral hygiene aids were recorded.

The conclusions were drawn as follows:

1. Knowledge on use and choice of home-care dental product.
 - People consider size, texture and shape as a very important/important factor in choosing the toothbrush.

- People consider waxed/unwaxed as an important factor in choosing dental floss. More than 2/3 of dental users have a habit of using it at least for every two day. Most floss users are young adults with a high education level.
- Almost all people use a non-professional designed toothpick to clean teeth after meals.
- People don't consider fluoride as an important criterion for choosing a toothpaste.
- People using fluoride containing mouthrinse do not consider that fluoride is used to prevent dental disease.

2. Information and availability of dental product.

- Most people admit that they do not have enough oral hygiene knowledge.
- People think that the manufacturers do not provide sufficient information about the dental products. Manufacturers claim that they provide adequate information to the public.
- Most people obtain oral health information through media including advertisements.
- Most people think that advertisements are not so reliable.
- Most manufacturers promote their product through advertisements, posters, and radio.
- The information about the market size of the commercially available oral hygiene aids in terms of sales volume cannot be obtained as they are confidential.
- Most dental products were highly available, except the superfloss, simple tuft and interdental toothbrush which were only available at Watson's and Manning's shops.

The following recommendations were put forward:

1. The public's knowledge on dental caries, periodontal disease, and fluoride should be improved.

2. Education on the functions of individual dental products should be improved.
3. Education on the significance of cleaning the interproximal area and using dental floss should be improved.
4. The appropriate authorities such as Government of the Hong Kong Dental Association should put more effort on promotion of oral health. Hong Kong Dental Association should keep in touch with the dental practitioners and provide information to them for promoting oral health.
5. Manufacturers should provide detailed information with both Chinese and English text on the package of their products. If this is not practicable, then at least a printed instruction could be inserted with the product like with many drugs.

2. INTRODUCTION

Nowadays, people in Hong Kong have become more and more concerned with their dental health. We know that the frequency of regular dental check-ups has increased and more people express a need for regular dental check up. However, 40% of people still only visit a dentist when they have problems with their teeth rather than regular check up. Thus, a further effort to educate the public on the importance of dental health is still necessary, and it is essential to convince the public that problems with the teeth are mostly due to improper care of teeth and that the professional support is only an addition to what the people can do themselves to improve their oral health by cleaning their mouth correctly and effectively. This greatly depends on the selection and proper use of home care oral hygiene aids.

Recently, numerous companies have been promoting many new oral health products on the market, and more and more advertisements through the mass media reach the citizens. It seems hard for the public to decide which product is most suitable for them when they face such an explosion of types of products and advertisements: toothbrushes with different size, bristle texture, and design; toothpastes with different ingredients claim different functions; waxed, unwaxed floss; numerous types of mouthrinses and so on. As consumers, we have a right to know about what we are using and also about the commercially available products which we may not use yet.

Our project, as a kind of health service research, set out to study the knowledge of the public on oral hygiene aids - how they choose and use those products as well as the influences of the manufacturers and availability of the products.

3. AIM

The aim of our project was to study the knowledge of the public on how to choose and use home care oral hygiene aids including the sources of their knowledge. We also aimed to study the information strategies of the manufacturers of oral hygiene products directed at the public, and we wanted to assess the availability of the different products in the market.

4. OBJECTIVES

Our objectives were:

1. To study the knowledge of the public about oral hygiene aids in terms of their:
 - i) criteria for selecting oral hygiene aids;
 - ii) reasons for using oral hygiene aids;
 - iii) perceived knowledge of oral hygiene aids;
 - iv) sources of oral hygiene information.
2. To gather the information provided by the manufacturers about their:
 - i) range of products;
 - ii) means of promotion;
 - iii) adequacy of information on packages;
 - iv) oral health education to the public;
 - v) market size of the commercially available oral hygiene aids in term of sales volume and the value of the company.
3. To study the availability of the oral hygiene aids to the public in the market.

5. MATERIAL AND METHODS

5.1 Telephone Survey

A. Study population

Following the decision to conduct this particular project, we made up our mind on choosing the people who buy and use oral hygiene products. The target group would mainly be the household, since most oral hygiene activities could be expected to be related to the home.

B. Questionnaire

The questionnaire was chosen as an appropriate methodology, since it can be used to obtain standardized information from many people. Further, it was chosen to conduct the survey as a telephone survey. The questionnaire contained 78 questions and was divided into 8 parts:

- i) Frequency of oral hygiene products being present in family, being used and being bought.
- ii) Frequency of brands of oral hygiene products being used.
- iii) Knowledge of usage of the oral hygiene products being used.
- iv) Knowledge of functions of the oral hygiene products being used.
- v) Knowledge on making an appropriate choice among the same kind of oral hygiene products.
- vi) Sources and perceived sufficiency and perceived reliability of information concerning oral hygiene products.
- vii) Perceived oral health and treatment needs.
- viii) Background: Age, education and number of school children.

The full questionnaire is given in Appendix 1.

A pilot study for the questionnaire was conducted with our friends and relatives. Appropriate corrections were made on the questions.

C. Sampling method

Telephone numbers were first randomly drawn from the public telephone directories (HK, KLN, NT). Approximately 500 telephone numbers

were drawn from the top right hand corner on every page as the "seed numbers", from which another 3000 numbers were generated using the plus/minus single digit method with the aid of a computer programme written in database language. All 3000 numbers were then re-arranged in a random order to give the final telephone sample frame¹.

D. Mode of survey

The telephone survey was conducted through the Computerized Telephone Survey Unit in the Social Sciences Research Centre, The University of Hong Kong. The questions were entered into the computer using the MRSP programme written by the Director of the Social Science Research Centre.

The telephone number was keyed into the computer each time. If there was no contact or the person who was the purchaser of oral hygiene products was not at home, the computer would store the number which would reappear on the screen next day, so that we could try once more. Again if there was no answer or purchaser, the telephone number would not be regenerated.

When contact was successfully established with a target household, it was first screened whether the person who picked up the phone was a purchaser. Out of those qualified persons present, one target respondent was drawn using the "last birthday" rule.

In order to increase the rate of successful telephone survey completions, prior to asking the questionnaire, respondents were told that a souvenir could be picked up in the Prince Philip Dental Hospital later if the questionnaire was completed. The souvenir contained a toothbrush, toothpaste, mouthrinse and dental floss.

A successful interview took about 15 minutes to complete. The whole telephone survey took about 25 working hours and 490 questionnaires were completed.

5.2 Visits to Dental Product Companies

The companies which were known to be market leaders in the field of oral hygiene products were selected as follows: Bausch & Lomb, Butler, Colgate, Johnson & Johnson, Oral B, and Sensodyne. Letters were sent to request an interview with their representative. After some negotiations, 4 out of 6 companies agreed to give an interview (Appendix 4).

About 4 of our group members attended each meeting at the office of the companies. Information about the product range and rank, way of delivery and promotion of product and education to the public was collected by means of an interview using a set of guidelines (Appendix 2). Also, a set of dental products and recent research on new products were collected as a reference for our study.

Each company was invited to sponsor us by means of dental products which could be used as a souvenir for the interviewees of the telephone survey in order to increase the success rate.

5.3 Field Trip

In order to investigate the availability of oral hygiene products in Hong Kong, 7 districts in Hong Kong were selected, based on the population density and geographical distribution of population². They were Central and Western, Eastern, Mong Kok, Kowloon City, Kwun Tong, Tsuen Wan and Sha Tin districts. In each district, 6 shops readily accessible to the public including Park'n Shop, Wellcome, Watson's, Mannings, Seven-Eleven and a dispensary shop were visited. The availability of dental oral hygiene products was marked down on our check list (Appears in Table 2).

6. RESULTS

6.1 Interviews with the Public

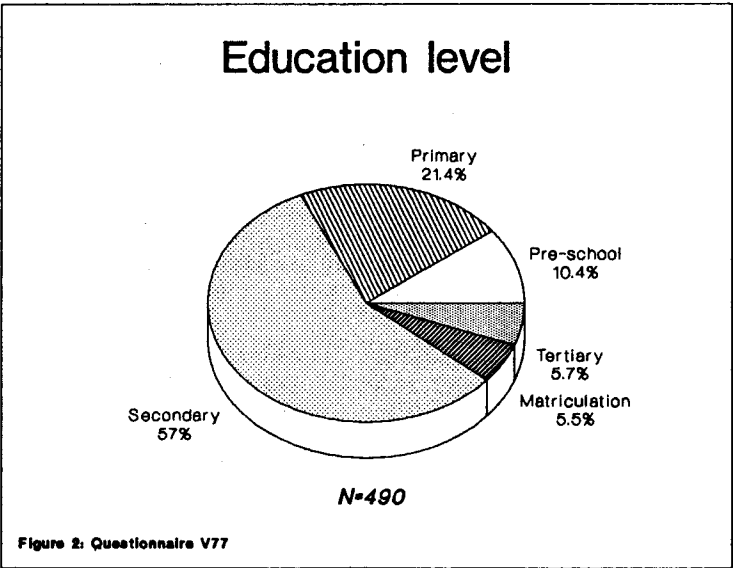
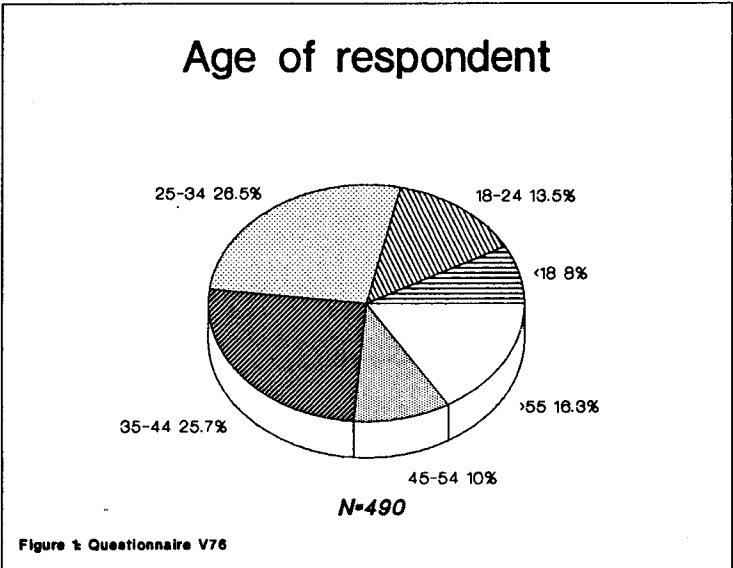
A total of 490 respondents successfully completed all the questions in the telephone survey.

Age of respondents

More than 50% of the respondents were 25-44 year old (Fig. 1).

Education level

Fig. 2 shows that more than half of the respondents had received secondary education and higher. 32% of respondents had received primary education or below. 11% had post-secondary education.

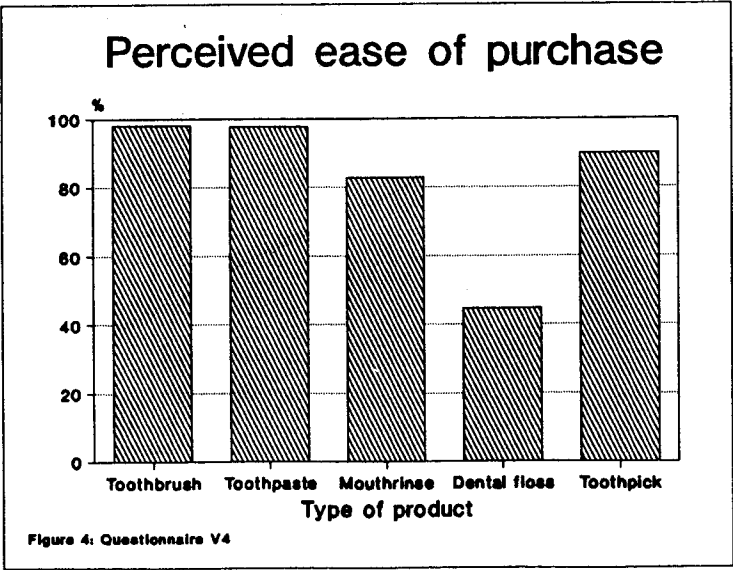
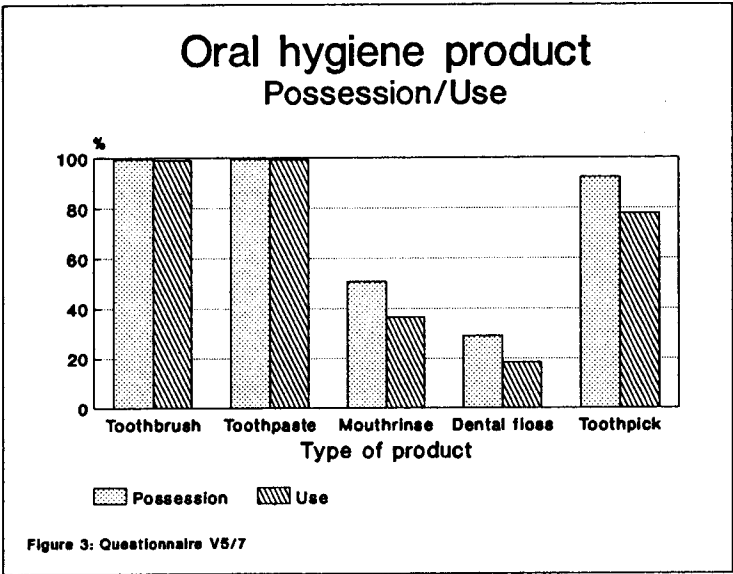


Possession/Use

Toothpaste, toothbrush and toothpicks could be found in almost all the respondents' home and there was a close relationship between possession and use (Fig. 3). Only less than 1/3 of the respondents reported possession/use of mouthrinse and dental floss.

Perceived ease of purchase

The respondents claimed that most of the dental products could be very easily bought (Fig. 4). More than half thought that floss was difficult to buy.

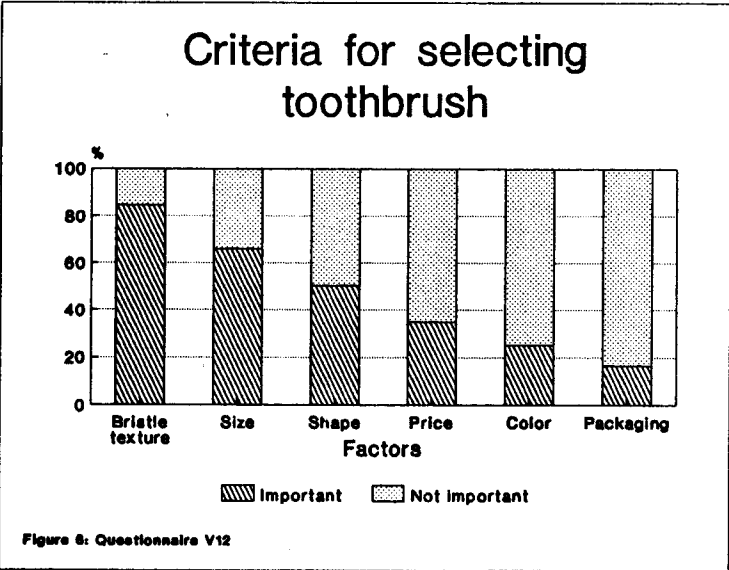
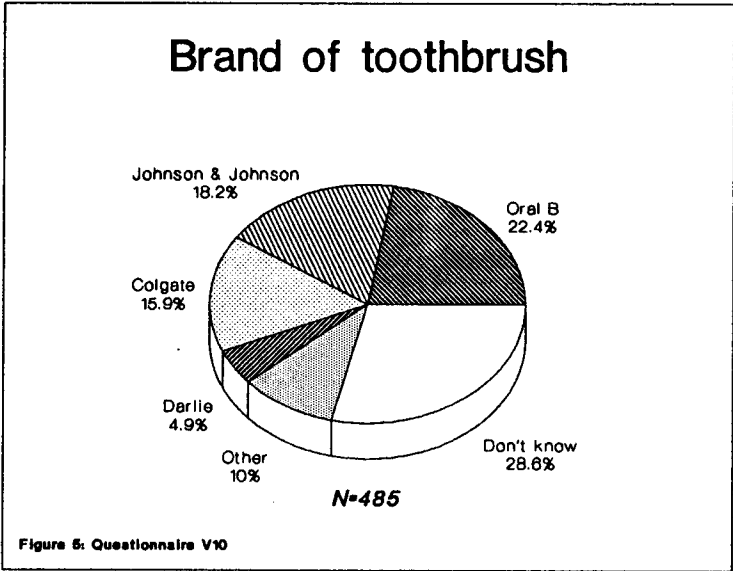


Brand of toothbrush

Fig. 5 shows that about 29% of the respondents did not know which brand of toothbrush they were using. The favourite brand in order of frequency were: Oral B (22.4%), Johnson & Johnson (18.2%), Colgate (15.9%), Darlie (4.9%).

Criteria for selecting toothbrush

The important factors when selecting a toothbrush were Texture (\sim 80%), Size (\sim 60%) and the Shape (\sim 50%); price, colour and packaging seemed to be less important (Fig. 6).

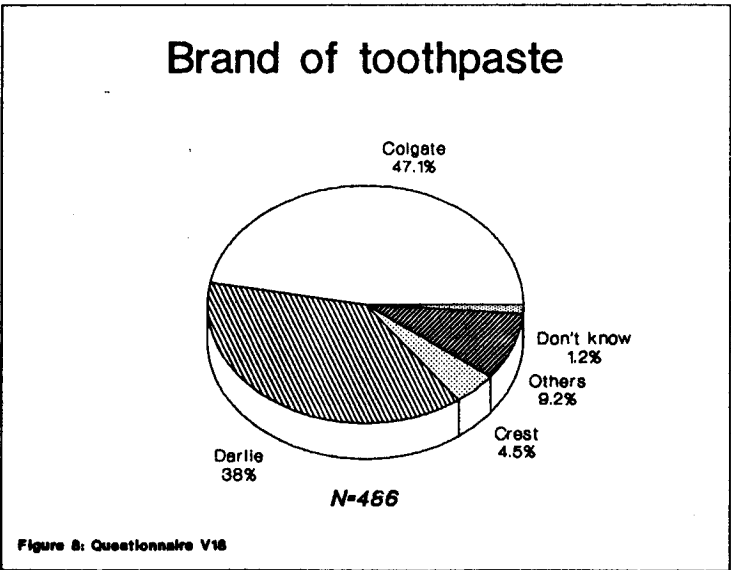
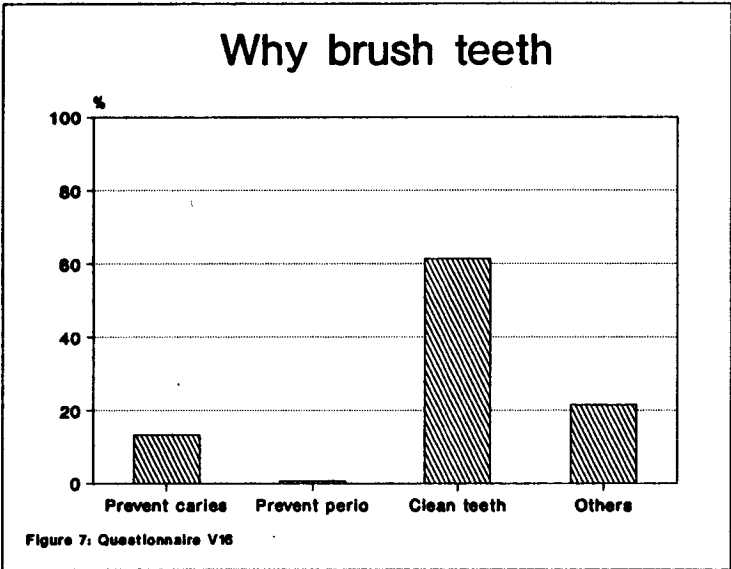


Why brush teeth

Most of the respondents found that the function of toothbrushing was to clean teeth. Only less than 15% mentioned dental caries and only a few related toothbrushing to periodontal disease (Fig. 7).

Brand of toothpaste

Fig. 8 shows that Colgate (47.1%) and Darlie (38%) occupied the largest proportion of the market.



Factors in choosing toothpaste

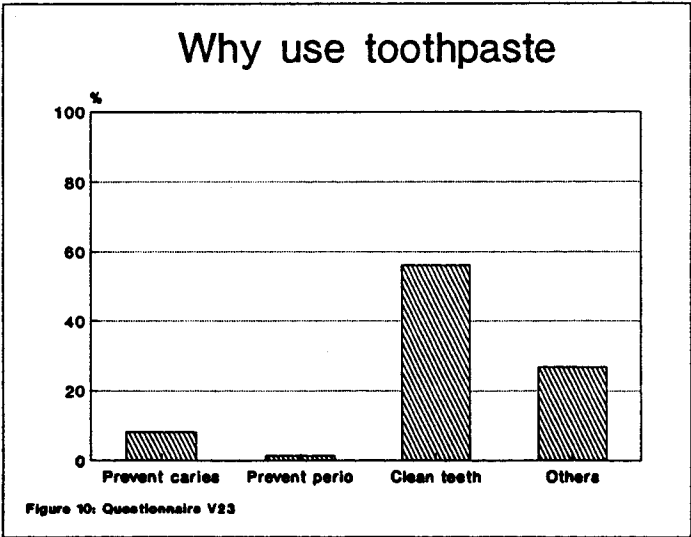
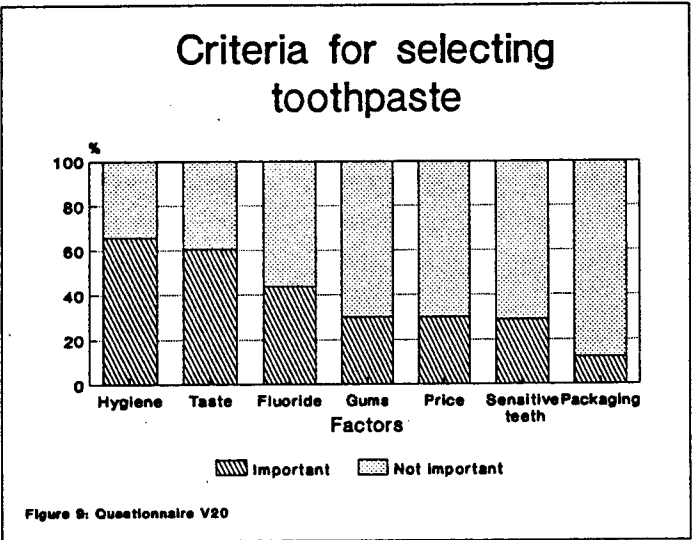
More than 60% of the respondents considered the hygiene and the taste to be the most important factors in selecting toothpaste. Fluoride was the third most important factor and packaging was the least important factor (Fig. 9).

Why use toothpaste

Fig 10 shows the main reasons for using toothpaste. 56% considered that the main function was to clean teeth. Only about 10% of the answers were concerned about dental disease, and dental caries was considered more important than periodontal diseases.

Quantity affects effectiveness

41% of the respondents considered that the quantity of toothpaste will affect the effectiveness of toothbrushing, 14.5% did not know the answer.

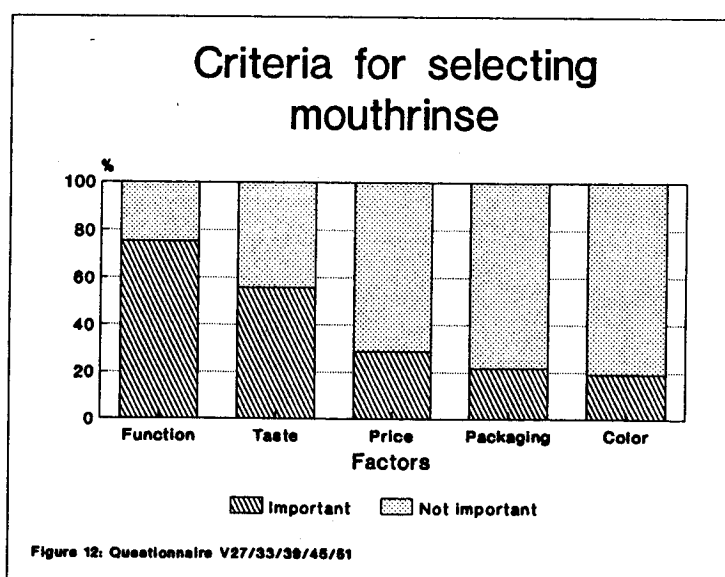
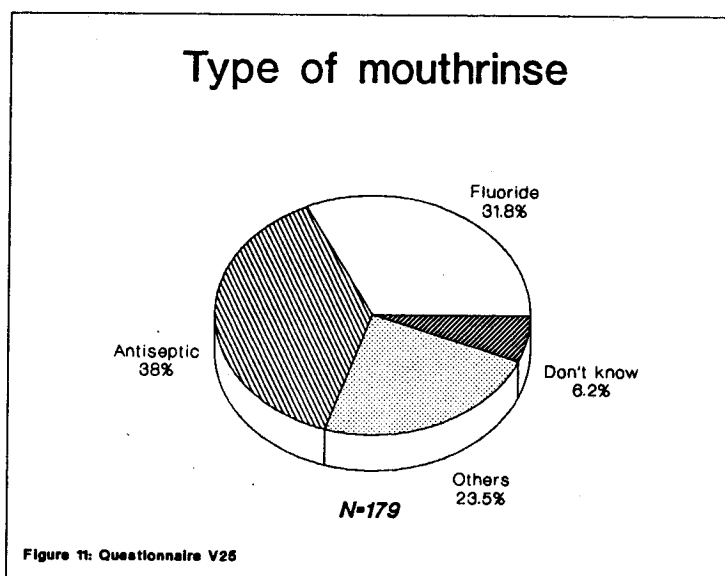


Type of mouthrinse

Figure 11 shows the type of mouthrinse used by 179 respondents. Out of the 179 users, 38% were using an antiseptic mouthrinse and 4% were using a fluoride one. Only 6% did not know what kind of mouthrinse they were using.

Factors in choosing mouthrinse

Function again was the most important reason in choosing mouthrinse (75%). The second most important factor was the taste (56%). Price, packaging, and colour seemed to be less important factors (Fig. 12).

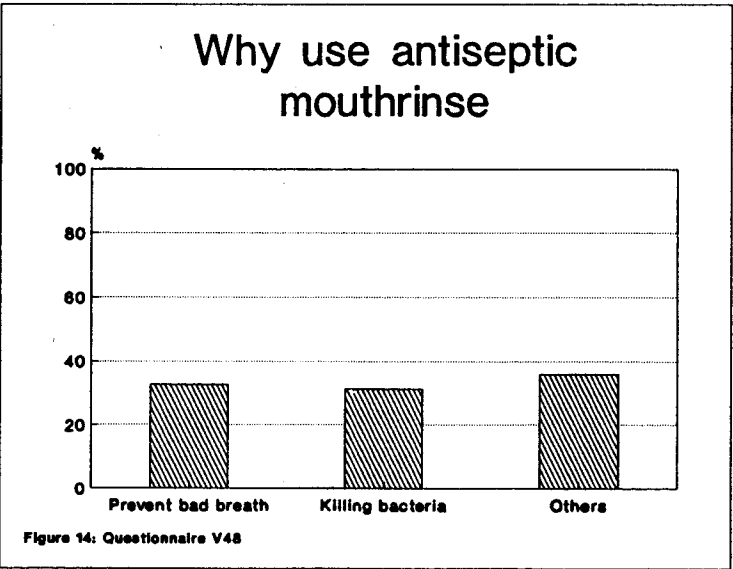
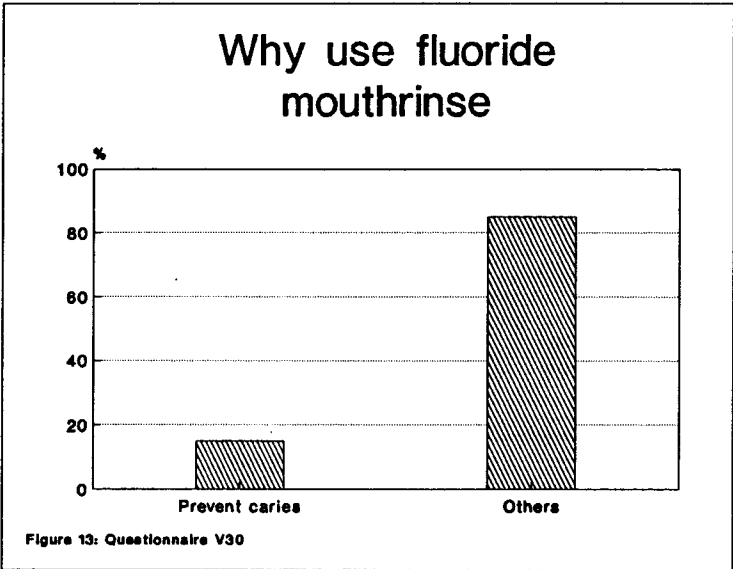


Why use fluoride rinse

Among the users of fluoride rinse (57 users), only 15% of the respondents considered prevention of caries to be the main reason for using fluoride mouthrinse. Other reasons included prevention of bad breath, for a cleaner mouth and also a better feeling after rinsing (Fig. 13).

Use of antiseptic mouthrinse

When questioned about the function of antiseptic mouthrinse, only 33% of the users (67 users) considered the main function to be to kill bacteria and another 31% used it to prevent bad breath (Fig. 14).

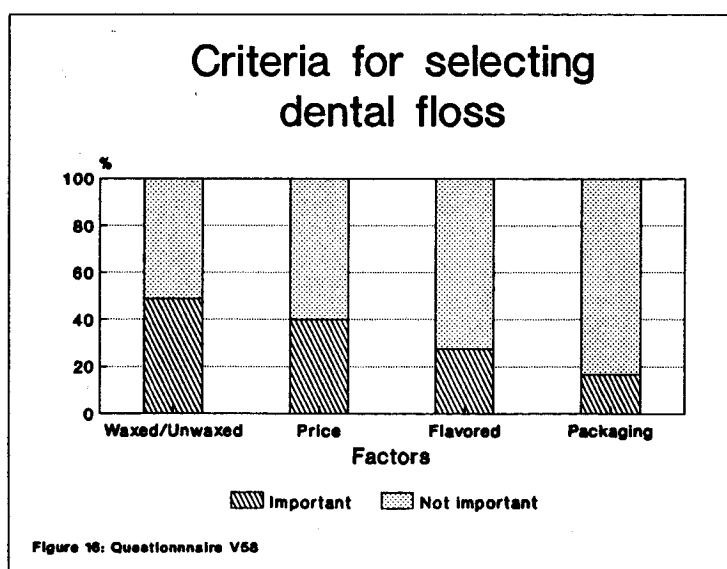
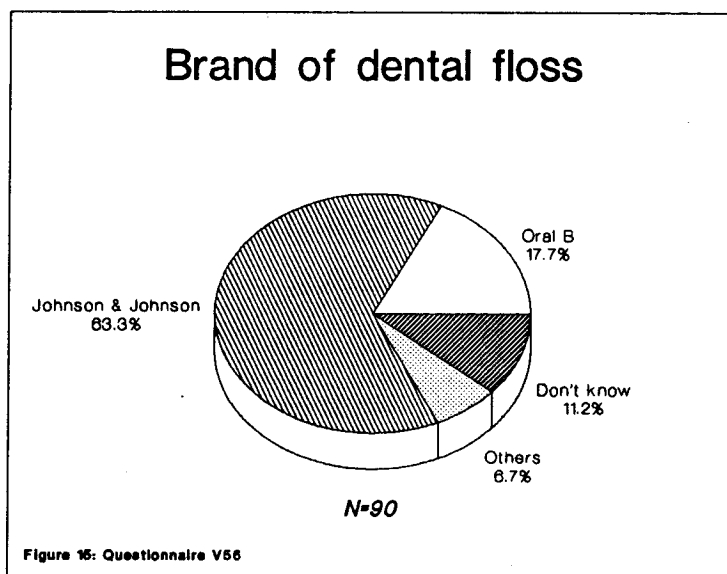


Brand of floss

Among 90 users, 63.3% were using Johnson and Johnson dental floss and another popular brand was Oral B 17.7% (Fig. 15).

Factors in choosing floss

During choosing dental floss, the wax-coated surface was the prime factor, 48.8% of the respondent considered it was important. The less important factors in priority order were price, flavour and packaging (Fig. 16).

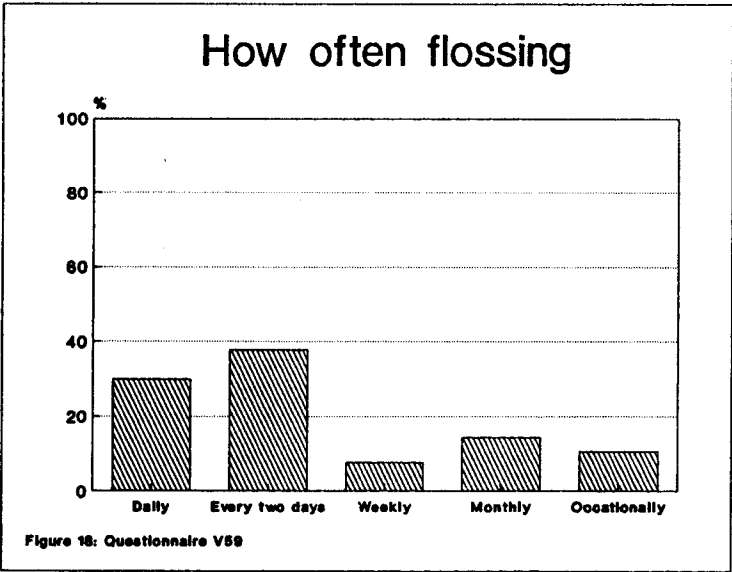
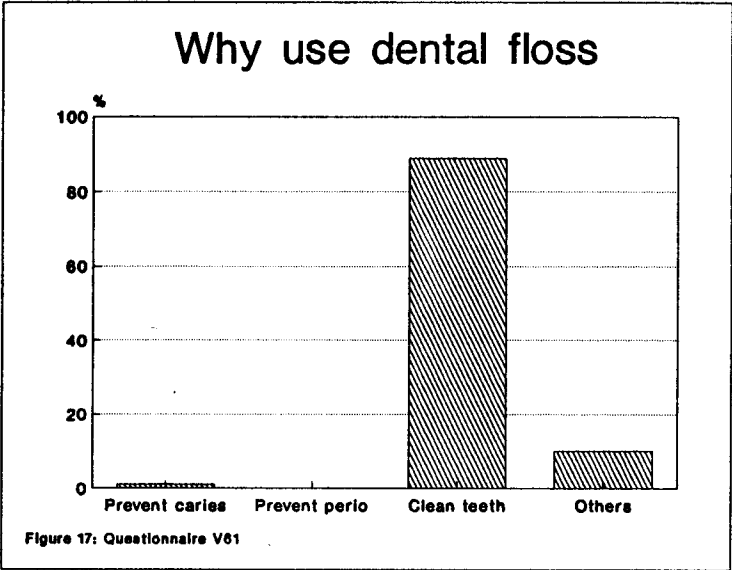


Why use floss

Similar to the result in toothbrushing and toothpaste, the reason for using floss was to clean teeth (89%). Only 1 user mentioned prevention of caries and nobody talked about prevention of periodontal disease (Fig. 17).

How often floss

More than 60% of dental floss users had the habit of flossing every two days (Fig. 18).

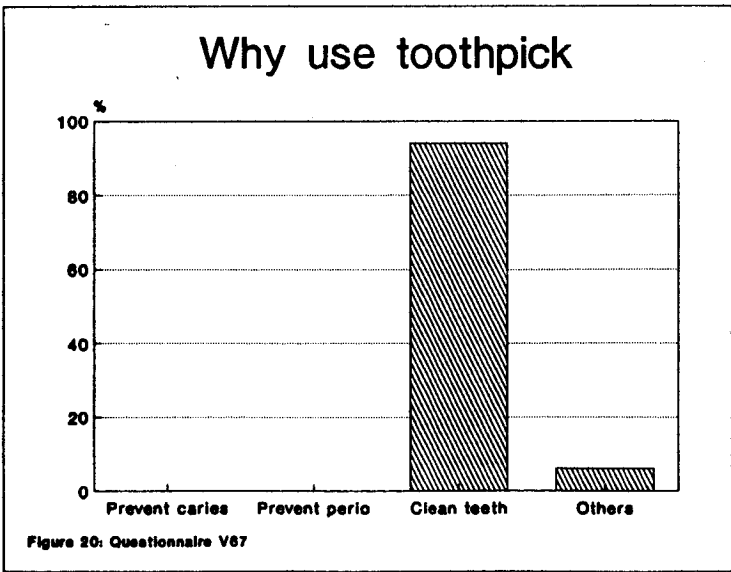
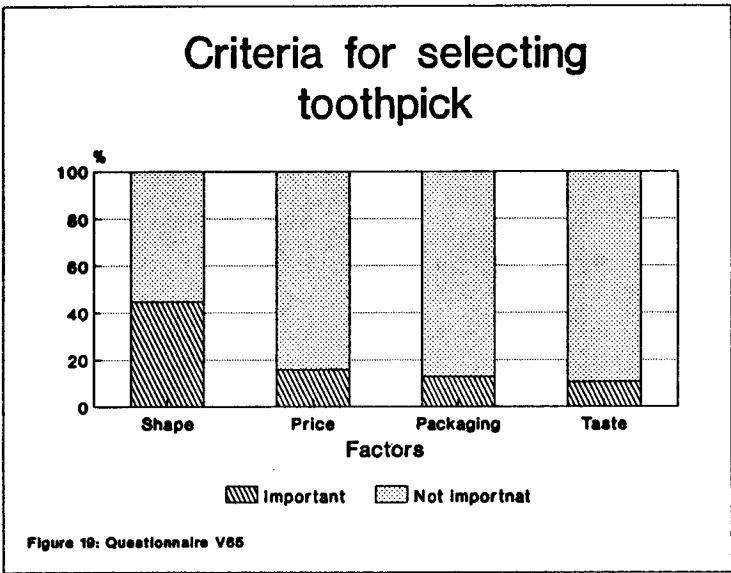


Factors in choosing toothpicks

Fig. 19 shows that most of the respondents (more than 50%) considered the shape, taste, price of the toothpicks, whereas packaging of toothpick was not so important. Nevertheless, the shape was considered as an important factor.

Why use toothpick

94% of the respondent reported that the function of toothpick was to clean the teeth, especially in the proximal area. Whereas the others considered that it was just a daily routine work (Fig. 20).

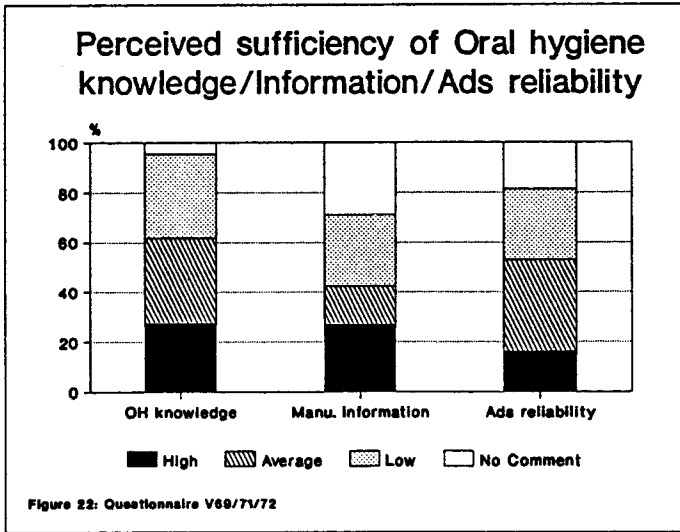
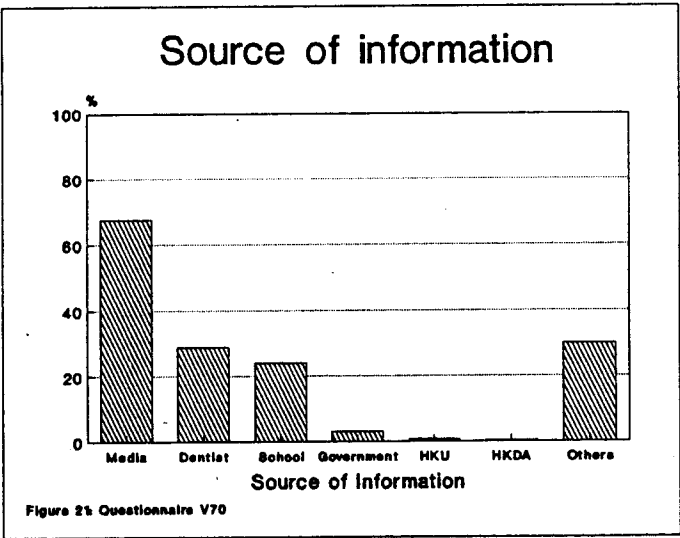


Source of information

When questioned about from where they usually received information about oral hygiene and oral hygiene products, multiple answers were accepted. The most frequent sources of the information were media including advertisement (67.6%), dentist (28.8%), school (24.1%), and other (30%) including parents, friends and relatives. Government (3.1%) and HKDA (0.4%) only occupied a very small proportion in providing information (Fig. 21).

Perceived sufficiency of oral hygiene knowledge/information/advertisement reliability

When questioned about the knowledge about the oral hygiene products, only 28% said that they were well informed; 34% were average, 34% were not well informed (Fig. 22). Respondents with no comment only constituted a very small portion (4%).

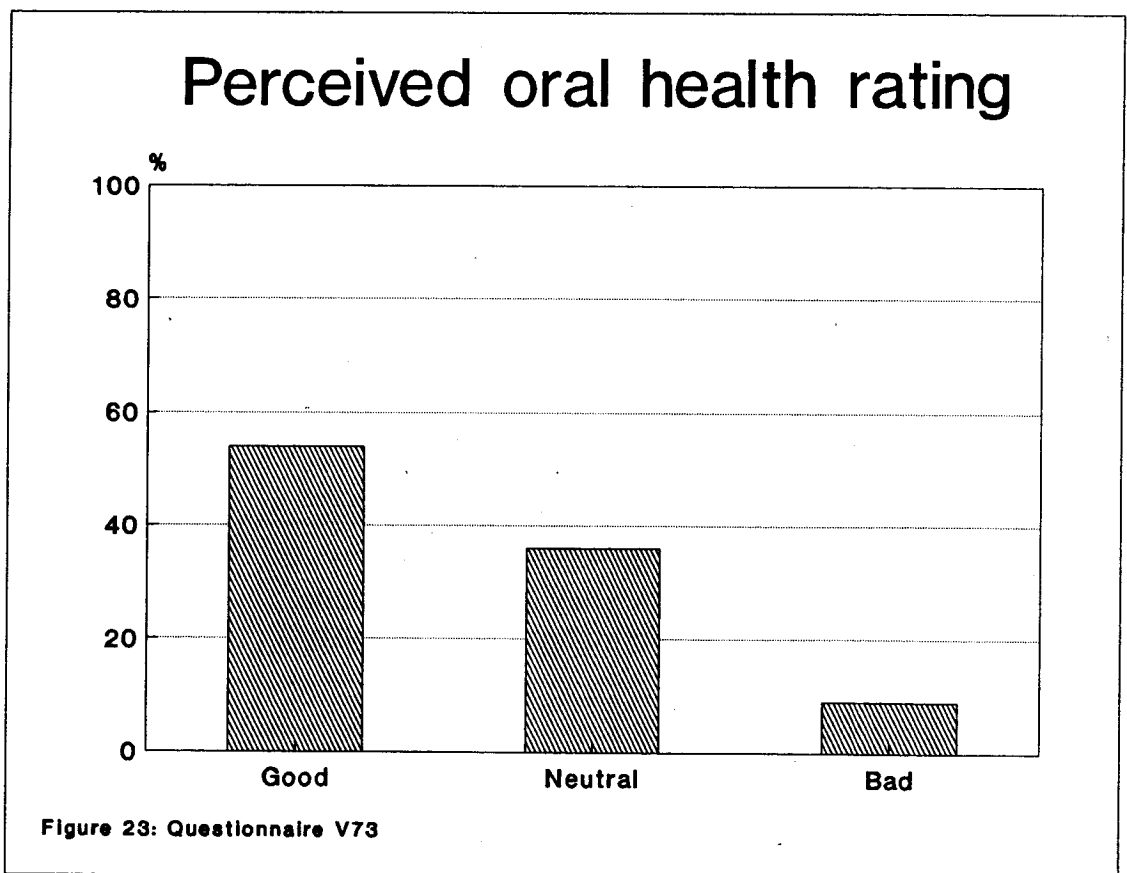


On the other hand, 27% of the respondents considered that manufacturers presented enough information. 16% were average, 29% said that it was not enough. And a larger number responded as no comment (29%).

Another question was about the reliability of the advertisement. A smaller portion (16%) said that it was high, the largest portion (37%) felt reliability was fair. 28% did not rely on advertisements and 19% had no comments.

Perceived oral health rating

The respondent's opinions about their own oral health is shown in Fig. 23. More than half (54%) considered that they had good oral health; 36% reported fair oral health and only 9% thought that they had bad oral health.



6.2 Interviews with Dental Product Companies

Of the six companies selected, interviews were conducted with 4, namely Colgate, Johnson & Johnson, Oral-B, and Butler. Bausch & Lomb refused to have an interview and Sensodyne provided limited information which was hard to present. In Table 1 summary information concerning the contents of the interviews have been provided.

For the promotion of their products, television was the most popular medium, and all the companies claimed that it was the most convenient means to reach the largest number of people, whereas newspaper and magazine were less cost-effective. On the other hand, Butler did not have any promotion at all in Hong Kong.

On the education to the public, Colgate, Johnson & Johnson and Oral-B all claimed they had done something in this field. For example, posters, pamphlets, etc. Butler would put effort on education later.

When talking about the language available on the package, the first 3 companies all said that for certain kinds of products, both English and Chinese were available. and all 4 companies thought that there were adequate information on the packages. All their dental products could be easily purchased in the market, but Butler could only be found in Mannings and Wing On Department Store.

Colgate had been the market leader of toothpaste for years. Johnson & Johnson and Oral-B at the same time claimed that they were market leaders of toothbrushes. However, sales volume of dental products were a commercial secret, so it could not be reported here.

Appendix 3 contains more detailed notes on each interview.

Table 1. Summary information concerning the results of interviews with dental product companies

	Colgate	Johnson & Johnson	Oral B	Butler
Product range	Toothbrush Toothpaste Mouthrinse	Toothbrush Mouthrinse Floss	Toothbrush Toothpaste Mouthrinse Floss	Toothbrush Toothpaste Mouthrinse Floss
Promotion	TV, Radio Newspaper Magazine	TV Newspaper Magazine	TV	-
Education	Yes	Pamphlet, Talk Video, Poster	Poster	No ¹
Language on package	English ² Chinese	English Chinese	English Chinese	English
Adequacy of information on package	Adequate	Adequate ³	Adequate	Adequate
Availability in market	Available	Available	Available	Available ⁴
Rank	Market leader of Toothpaste	Market leader of Toothbrush	Market leader of Toothbrush	-

¹ Plan to have poster soon

² Product in English package have more sales volume

³ Too hard to have detailed information on the package

⁴ Mannings, Wing On only

6.3 Field Trip Report

A total of 42 shops in 7 districts were investigated. The results have been summarized in Table 2. The number indicates whether the product was available (7 means the product were available in all 7 shops in that group and 0 means the product was not available in that group of shops).

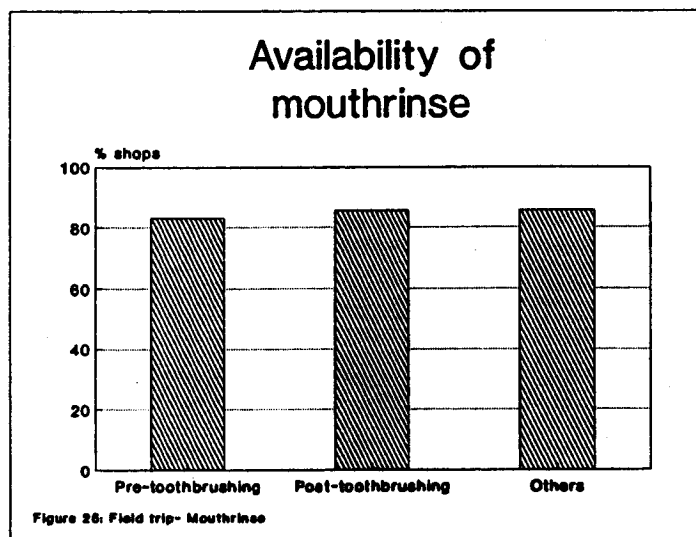
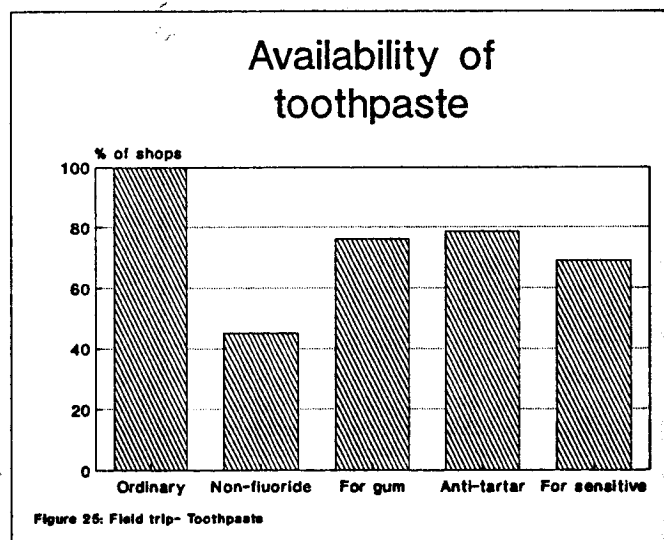
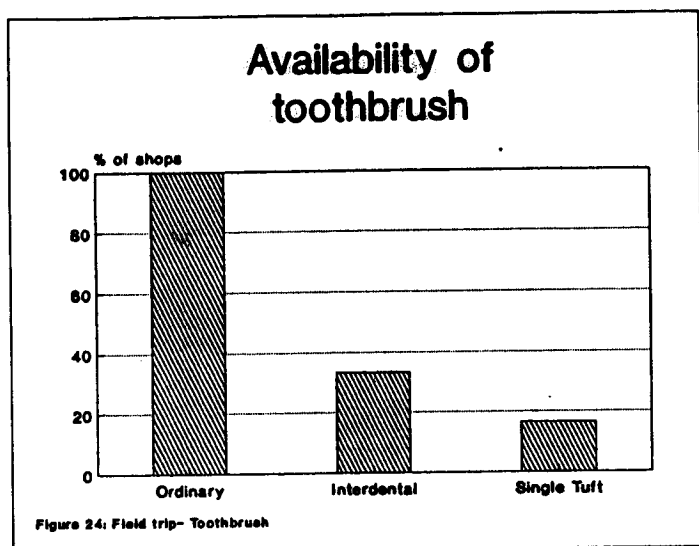
Table 2. Field Trip Report.

Availability of various oral hygiene aids in 7 selected Hong Kong shops

	Park'n Shop	Wellcome	Watson's	Mannings	Pharmacy	Seven Eleven
Toothbrush						
1. Ordinary	7	7	7	7	7	7
2. Interdental			6	6	2	
3. Single tuft			3	4		
Toothpaste						
1. Ordinary (F)	7	7	7	7	7	7
2. Fluoride	3	3	4	6	3	
3. For gum	7	6	7	7	5	
4. Anti-tar tar	6	7	7	7	4	
5. For sensitive	2	5	7	7	5	
Mouthrinse						
1. Pre-toothbrush	7	7	7	7	7	
2. Post-toothbrush	7	7	7	7	7	1
3. Others	7	7	7	7	7	1
Floss						
1. Ordinary						
Waxed	4	6	7	7	7	2
Unwaxed	2	3	6	7	5	
Fluoride		1	4	2	4	
2. Super				7	1	
Toothpick						
1. Ordinary	7	5	1	3	4	3
2. Special			3	3	1	
Total No of Shops	7	7	7	7	7	7

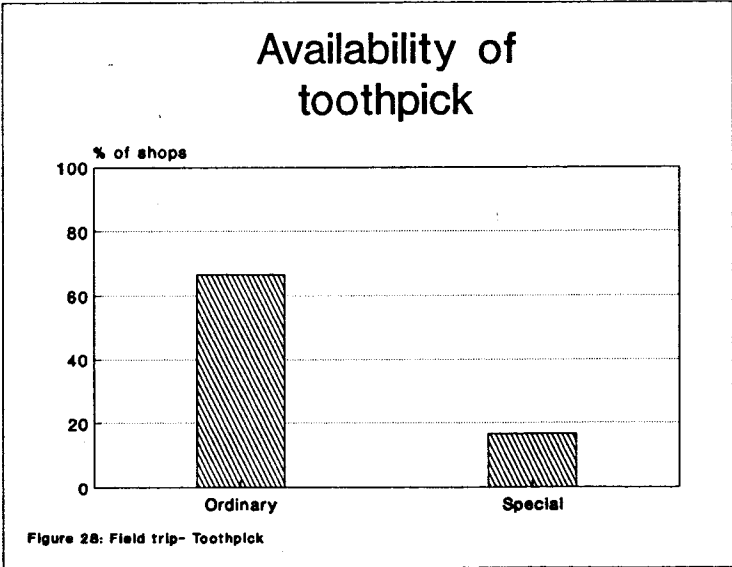
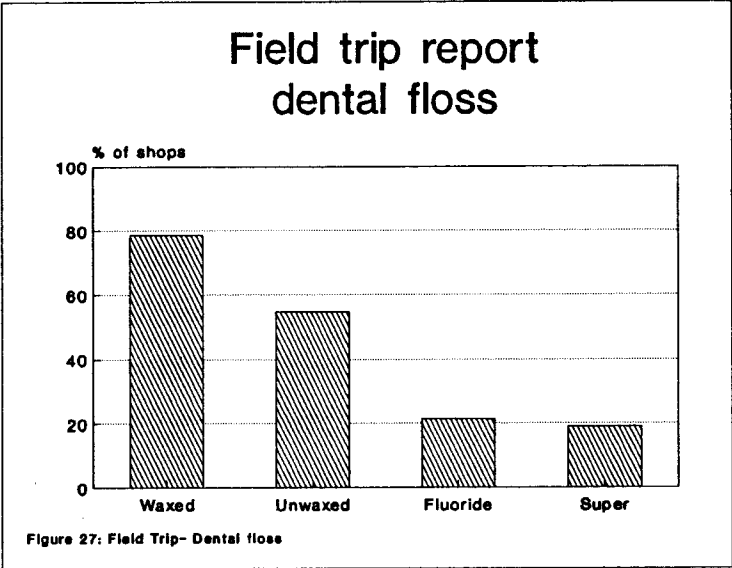
Ordinary toothbrushes were available in all the shops investigated. Interdental brushes were available in 33% of the shops whereas only in 17% of the shops single tuft toothbrush could be bought (Fig. 24).

Again, in all shops fluoride containing ordinary toothpaste were available. Non-fluoride toothpaste was much less common. Gum protection, anti-tartar and sensitive toothpaste were comparatively more available (> 70%) in the market (Fig. 25). On the other hand, mouthrinse, whatever the type, were quite common in the market (> 80%) (Fig. 26).



Although floss seem to be unpopular, however, waxed floss could be bought in ~80% of the shops investigated. The new fluoride one and superfloss would be more difficult to purchase and they were available in only ~20% of the shops (Fig. 27).

The use of toothpick is very common in this Chinese society. However, even the ordinary toothpick can only be bought in just over 1/2 of the shops investigated and the specially-designed one are even more difficult to find (17%) (Fig. 28).



7. DISCUSSION

- a) This is the first time, the Computerized Telephone Survey System has been utilized to conduct a survey in a Public Health Project. This method has been widely adopted in the Social Sciences Research Centre¹. It provided a quick and easy way to conduct a questionnaire survey. Furthermore, it facilitated the processing and analyzing of the data greatly since all the data was keyed directly into the computer.
- b) The "directory plus/minus" method is considered as one of the most scientific methods of telephone sampling according to the prevailing literature¹.

There were totally 490 respondents in our telephone survey. The distribution of age and education was similar to the figures of the Hong Kong Census 1991. 52% of them are within the age of 25-44 and have secondary education level or above. It could be argued that since the population is chosen on the basis of the presence of a listed telephone it might be biased towards higher social groups in the population. However, according to Hong Kong Telecom, there is more than one telephone per household on an average in Hong Kong. So we consider our study population more or less representative of the population in Hong Kong.

Knowledge on use and choice of home care dental product

From the result of the telephone survey, we noticed that more than 90% of respondents have toothbrush, toothpaste and toothpick at home and use them. However, less than 50% of respondents have mouthrinse and floss at home and use them.

People know that the function of toothbrushing, use of toothpaste, mouthrinse, dental floss and toothpick may be to clean teeth but only a few people (<10%) relate this function to the prevention of caries and periodontal disease. In addition, people are more familiar with dental caries than periodontal disease.

Most people use toothpaste twice everyday, but half of the respondents misinterpret that the quantity used will affect the effectiveness of toothbrushing. Although, dental product companies try to promote and educate people about the powerful function of fluoride in toothpaste and mouthrinse, people still do not recognise fluoride as an important reason for choosing toothpaste. Furthermore, only 15% of the fluoride mouthrinse users know that it is used to prevent caries. Conversely, people seem to have a better knowledge on choosing toothbrush than toothpaste and mouthrinse. They consider the texture, shape, and size of a toothbrush as important criteria.

Traditionally, people use toothpick to remove food debris in approximal areas after meals. In Hong Kong, most of the restaurants and fast food shops provide toothpicks to their customers. So, using toothpicks is very popular in Hong Kong. Normally, the non-professional round toothpick is used to clean teeth. Almost none of the users would probably consider a toothpick as a kind of aids to prevent dental diseases and recognise the professionally designed toothpick (e.g. Interdens) if it were available in the market.

Information of oral health and dental product

Even though people can obtain oral hygiene information from many sources, 70% of them feel that they do not have enough oral hygiene knowledge. People think that the major source of obtaining information is from mass media (including advertisement). Amazingly, only 16.3% people believed that the information from advertisement is reliable. The Hong Kong Dental Association have launched 2 advertisements on T.V. which were aimed at educating the public on the importance of dental health and the need for regular dental visits. From the tracking study of these 2 advertisements, it could seem that they were capable of creating positive attitudes towards dental care and regular dental visits³. If advertisements have this effect on changing people's attitudes, the information of the other dental product advertisements should be more reliable.

It's gratifying to notice that one third of people obtained information from the dentist. As a profession, we hope that dentists can provide primary preventive

treatment to the public rather than just giving secondary and tertiary preventive treatment. Actually, it is a duty of all dentists who are the most suitable persons to convey oral health knowledge and oral hygiene product information to their patients. If the Hong Kong Dental Association can influence people to have regular dental visits, then, more and more people can obtain information from dentists.

Although the Government has a duty to promote public health including oral health, only few people get information from it (3.1%).

Some manufacturers claimed that part of the dental product is manufactured in other countries and imported to Hong Kong. So the language or package is mainly in English. Also, from the interview with the dental product managers, it was the impression that the use of English on the product package may be a strategy. It may project a high profile to the consumer and the sale volume of the product will be higher than using Chinese as a language for the same product. In fact, people use Chinese as their mother language and the people who are responsible for buying dental products are mainly housewives (52.4%) who may not know English at all. So, it's difficult for them to choose and use the products properly. The manufacturer claim that they provide adequate information on their product. However, 70% of the consumers don't think that they provide enough information.

Availability of dental product

According to the results of the field trip to supermarkets and dispensary shop, the availability of most dental products is very high in general. Only the interdental, single tuft toothbrushes and superfloss are not available in most of the shops. There is a strong relationship between supply and demand of a product. (People don't know that they can clean the interproximal surfaces of spaced teeth with interdental brush, the crowded teeth with single tuft and the bridge with superfloss.) Because of the insufficient knowledge on the use of these products, consequently, the demand and the supply is very low. So if people want to buy the above products, they need to go to Mannings and Watson's shops to purchase them. In spite of the general availability, 50% of the respondents reported that the

dental floss is difficult to buy. It may be due to the fact that either they cannot recognize what is dental floss or they do not use it. So, they think it is difficult to purchase.

Dental floss

Using dental floss is as important as using toothbrush to clean teeth since it can remove plaque at the approximal areas that the brush cannot reach. However, people using dental floss need high dexterity and high dental awareness. In addition, through the interviews with the dental product companies, it was found that the use of dental floss may depend on the promotion and education by the manufacturer and the dentist. Since the manufacturers realize that the dental floss is not common in the Chinese society, they won't promote it with great effort. On the other hand, a dentist usually only teaches the toothbrush technique to the patient in the clinic, but use of dental flossing is seldom taught. This may be the reasons for the low popularity of using dental floss. So, only 30% of the people have floss at home and 20% of them use it. Floss users will mainly be concerned with whether it's waxed/unwaxed as criteria for purchasing. They are not interested in the mint favour, fluoride contents, price, or brand. Although only 20% of people using floss, more than 2/3 of them have a correct habit of using it for at least every two days. Because of its important role in preventing dental disease, several factors which affect the use of dental floss was analyzed. The dental floss users are mainly the young adults between 25-44 years old and 70% have an education level above secondary. Usually, the young adult is willing to receive new information and ideas. Also, people with high education level show more dental awareness. Therefore, the young adult with high education level is a suitable target group as a pioneer to develop a habit of using dental floss. If the manufacturers can promote dental floss like toothpaste and the dentist can educate their patients to use dental floss, the popularity of using dental floss can be increased.

8. CONCLUSIONS

1. Knowledge on use and choice of home-care dental product.

- People consider size, texture and shape as a very important/important factor in choosing the toothbrush.
- People consider waxed/unwaxed as an important factor in choosing dental floss. More than 2/3 of dental users have a habit of using it at least for every two day. Most floss users are young adults with a high education level.
- Almost all people use a non-professional designed toothpick to clean teeth after meals.
- People don't consider fluoride as an important criterion for choosing a toothpaste.
- People using fluoride containing mouthrinse, do not consider that fluoride is used to prevent dental disease.

2. Information and availability of dental product.

- Most people admit that they do not have enough oral hygiene knowledge.
- People think that the manufacturers do not provide sufficient information about the dental products. Manufacturers claim that they provide adequate information to the public.
- Most people obtain oral health information through media including advertisements.
- Most people think that advertisements are not so reliable.
- Most manufacturers promote their product through advertisements, posters, and radio.
- The information about the market size of the commercially available oral hygiene aids in terms of sales volume cannot be obtained as they are confidential.
- Most dental products were highly available, except the superfloss, simple tuft and interdental toothbrush which were only available at Watson's and Manning's shop.

9. RECOMMENDATIONS

- 1. The public's knowledge on dental caries, periodontal disease, and fluoride should be improved.**
- 2. Education on the functions of individual dental products should be improved.**
- 3. Education on the significance of cleaning the interproximal area and using dental floss should be improved.**
- 4. The appropriate authorities such as Government of the Hong Kong Dental Association should put more effort on promotion of oral health. Hong Kong Dental Association should keep in touch with the dental practitioners and provide information to them for promoting oral health.**
- 5. Manufacturers should provide detailed information with both Chinese and English text on the package of their products. If this is not practicable, then at least a printed instruction could be inserted with the product like with many drugs.**

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3. Executive Summary on tracking Study for HKDA Advertising. Frank Small & Associates, Hong Kong. Campaign, 1991.

12. APPENDICES

Appendix 1A. Chinese Questionnaire

Appendix 1B. English Questionnaire

Appendix 2. Interview Framework for Meeting with Dental Companies

Appendix 3. Notes from Interviews with Companies

Appendix 4. Letter to Dental Product Companies

香港大學牙醫學院
九二年四年級第六組

問卷

5

0

[V1] 訪問員編號 #

[V2] 電話 #

第一部份： 自我介紹

喂，您好，我姓 X，係香港大學牙醫學院學生，我地而家做緊一個「家庭口腔護理用具」既研究，想阻你幾分鐘。你俾我地既資料會絕對保密，另外我地會有一份紀念品送番俾你。

第二部份： 選出被訪者

[V3] 由於想搵出被訪者，請話俾我知你屋企係邊位負責買牙膏牙擦（口腔護理用具）既呢？

（假如多過一位：「咁最近生日個位係邊個？」）

（假如他不在家：「咁我遲的再打黎，多謝合作」）

請叫個位黎同我講，唔該。

（重覆自我介紹）

[V4] 你係屋企既角色係

6

家庭主婦

持家者（一家之主）

最年長之子女

祖父母

工人

其他

第三部份： 分類

[V5] 請問你屋企有冇以下既口腔護理用具：

5

牙擦

有/冇

牙膏

有/冇

漱口水

有/冇

牙線

有/冇

牙簕

有/冇

[V6] 以下邊一樣係你買既呢？

5		
牙擦		係 / 唔係
牙膏		係 / 唔係
漱口 水		係 / 唔係
牙線		係 / 唔係
牙簏		係 / 唔係

[V7] 咁你用緊邊幾樣？

5		
牙擦		有 / 冇
牙膏		有 / 冇
漱口 水		有 / 冇
牙線		有 / 冇
牙簏		有 / 冇

[V8] 以下係一的常用既口腔用具，你認為易唔易買到呢？

5					
	1	2	3	4	5
牙擦	---	---	---	---	---
牙膏	---	---	---	---	---
漱口 水	---	---	---	---	---
牙線	---	---	---	---	---
牙簏	---	---	---	---	---

(1 = 非常容易, 2 = 容易, 3 = 普通, 4 = 難, 5 = 非常難, 6 = 不知道)

第四部份： 牙擦
4.1 選擇因素

[V9] 你有邊幾種牙擦？
(可選擇一個以上)

- 3
- 普通牙擦
- 牙縫擦
- 單頭牙擦

(以下既問題係有關普通牙擦既)

[V10] 你用緊邊隻牌子既牙擦？

- 11
- 歐樂B
- 莊生 (護齒)
- 高露潔
- 畢拿
- Jordan (V 型早晨牙擦)
- 黑人
- Dr. West
- Wisdom
- Aim (Angle-3)
- 其他
- 不知道

[V11] 係邊個推薦你買呢隻牙擦呢？

- 5
- 牙醫
- 廣告
- 朋友
- 親戚
- 個人喜好

[V12] 你上一次買牙擦既時候，你認為以下既因素緊唔緊要？

6					
	1	2	3	4	5
擦頭大小	---	---	---	---	---
擦頭形狀	---	---	---	---	---
顏色	---	---	---	---	---
擦毛軟硬	---	---	---	---	---
價錢	---	---	---	---	---
包裝	---	---	---	---	---
[1 = 非常緊要， 2 = 緊要， 3 = 無所謂 4 = 唔緊要， 5 = 不考慮]					

4.2 使用模式

[V13] 你每日擦牙幾多次？

7

1

2

3

4

5

有時

有需要時

[V14] 你大約幾多個月換一支牙擦？

5

< 1 月

1 - 3 月

3 - 6 月

6 - 12月

> 1 年

[V15] 邊種情況下你會考慮換牙擦？

3

擦毛散開

擦牙後仍覺得唔乾淨

無特別理由

4.3 擦牙功用

[V16] 你認為點解要擦牙？
(最主要原因)

10

無特別理由，例行公事

防止蛀牙

防止牙周病

防止口臭

防止牙齒脫落

刷走牙漬

清潔牙齒

儀容

殺菌

其他 -----

[V17] 你對你既牙刷滿唔滿意？

5

非常滿意

滿意

普通

不滿意

非常不滿意

第五部份： 牙膏

5.1 選擇因素

[V18] 你用緊邊隻牌子既牙膏？

9

高露潔	-----
歐樂B	-----
佳齒	-----
黑人	-----
新素定	-----
獅王	-----
美加淨	-----
其他	-----
不知道	-----

[V19] 係邊個推薦你買呢隻牙膏呢？

5

牙醫
廣告
朋友
親戚
個人喜好

[V20] 你上一次買牙膏既時候，你認為以下既因素緊唔緊要？

6

	1	2	3	4	5
含有氟素	----	----	----	----	----
味道	----	----	----	----	----
刷得乾唔	----	----	----	----	----
乾淨/潔唔潔白					
敏感牙肉	----	----	----	----	----
敏感牙齒	----	----	----	----	----
價錢	----	----	----	----	----
包裝	----	----	----	----	----

[1 = 非常緊要， 2 = 緊要， 3 = 無所謂
4 = 唔緊要， 5 = 不考慮]

5.2 使用模式

[V21] 你係咪每次刷牙都有用牙膏呢？

3
係
唔係
有時係

[V22] 你認為牙膏既份量會唔會影響刷牙既效率？

4
會
不會
可能會
不知道

5.3 牙膏功用

[V23] 你認為點解要用牙膏？
(最主要原因)

10
無特別理由，例行公事
防止蛀牙
防止牙周病
清除口臭
防止牙齒脫落
刷走牙漬
清潔牙齒
儀容
殺菌
其他

[24] 你對你既牙膏滿唔滿意？

5
非常滿意
滿意
普通
不滿意
非常不滿意

第六部份： 漱口水

6.1 選擇因素

[V25] 你用緊邊隻牌子既漱口水？
(如多於一隻：「咁邊隻用得最多？」)

8

莊生

- 氟素

- CPC 潔牙水

高露潔

- 氟素

- 貝齒

李斯德林

口康健

其他

不知道

6.F.1.

[V26] 係邊個推薦你買呢隻漱口水呢？

5

牙醫

廣告

朋友

親戚

個人喜好

[V27] 你上一次買漱口水既時候，你認為以下既
因素緊唔緊要？

5

1

2

3

4

5

味道

顏色

功用

價錢

包裝

[1 = 非常緊要， 2 = 緊要， 3 = 無所謂

4 = 唔緊要， 5 = 不考慮]

6.F.2 使用模式

[V28] 你每日用漱口水幾次？

- 5
- 有時用
- 1
- 2
- 3
- >3

[V29] 你幾時用漱口水？

- 5
- 刷牙前
- 刷牙後
- 有需要時
- 唔刷牙時
- 其他

6.F.3 漱口水功用

[V30] 你認為點解要用漱口水？
(最主要原因)

- 9
- 無特別理由，例行公事
- 防止蛀牙
- 防止牙周病
- 防止口臭
- 防止牙齒脫落
- 清潔牙齒
- 儀容
- 殺菌
- 其他 -----

[V31] 你對你既漱口水滿唔滿意？

- 5
- 非常滿意
- 滿意
- 普通
- 不滿意
- 非常不滿意

6.C.1.

[V32] 係邊個推薦你買呢隻漱口水呢？

5

牙醫

廣告

朋友

親戚

個人喜好

[V33] 你上一次買漱口水既時候，你認為以下既因素緊唔緊要？

5

1

2

3

4

5

味道

顏色

功用

價錢

包裝

[1 = 非常緊要， 2 = 緊要， 3 = 無所謂

4 = 唔緊要， 5 = 不考慮]

6.C.2 使用模式

[V34] 你每日用漱口水幾次？

- 5
- 有時用
- 1
- 2
- 3
- >3

[V35] 你幾時用漱口水？

- 5
- 刷牙前
- 刷牙後
- 有需要時
- 唔刷牙時
- 其他 -----

6.C.3 漱口水功用

[V36] 你認為點解要用漱口水？
(最主要原因)

- 9
- 無特別理由，例行公事
- 防止蛀牙
- 防止牙周病
- 防止口臭
- 防止牙齒脫落
- 清潔牙齒
- 儀容
- 殺菌
- 其他 -----

[V37] 你對你既漱口水滿唔滿意？

- 5
- 非常滿意
- 滿意
- 普通
- 不滿意
- 非常不滿意

6.P.1.

[V38] 係邊個推薦你買呢隻漱口水呢？

5

- 牙醫
- 廣告
- 朋友
- 親戚
- 個人喜好

[V39] 你上一次買漱口水既時候，你認為以下既因素緊唔緊要？

5

	1	2	3	4	5
味道	----	----	----	----	----
顏色	----	----	----	----	----
功用	----	----	----	----	----
價錢	----	----	----	----	----
包裝	----	----	----	----	----

[1 = 非常緊要， 2 = 緊要， 3 = 無所謂
4 = 唔緊要， 5 = 不考慮]

6.P.2 使用模式

[V40] 你每日用漱口水幾多次？

- 5
- 有時用
- 1
- 2
- 3
- >3

[V41] 你幾時用漱口水？

- 5
- 刷牙前
- 刷牙後
- 有需要時
- 唔刷牙時
- 其他 -----

6.P.3 漱口水功用

[V42] 你認為點解要用漱口水？
(最主要原因)

- 9
- 無特別理由，例行公事
- 防止蛀牙
- 防止牙周病
- 防止口臭
- 防止牙齒脫落
- 清潔牙齒
- 儀容
- 殺菌
- 其他 -----

[V43] 你對你既漱口水滿唔滿意？

- 5
- 非常滿意
- 滿意
- 普通
- 不滿意
- 非常不滿意

6.L.1.
[V44] 係邊個推薦你買呢隻漱口水呢？

5
牙醫
廣告
朋友
親戚
個人喜好

[V45] 你上一次買漱口水既時候，你認為以下既因素緊唔緊要？

5	1	2	3	4	5
味道	----	----	----	----	----
顏色	----	----	----	----	----
功用	----	----	----	----	----
價錢	----	----	----	----	----
包裝	----	----	----	----	----
[1 = 非常緊要， 2 = 緊要， 3 = 無所謂， 4 = 唔緊要， 5 = 不考慮]					

6.L.2 使用模式

[V46] 你每日用漱口水幾次？

- 5
- 有時用
- 1
- 2
- 3
- >3

[V47] 你幾時用漱口水？

- 5
- 刷牙前
- 刷牙後
- 有需要時
- 唔刷牙時
- 其他 -----

6.L.3 漱口水功用

[V48] 你認為點解要用漱口水？
(最主要原因)

- 9
- 無特別理由，例行公事
- 防止蛀牙
- 防止牙周病
- 防止口臭
- 防止牙齒脫落
- 清潔牙齒
- 儀容
- 殺菌
- 其他 -----

[V49] 你對你既漱口水滿唔滿意？

- 5
- 非常滿意
- 滿意
- 普通
- 不滿意
- 非常不滿意

6.D.1.

[V50] 係邊個推薦你買呢隻漱口水呢？

5

牙醫

廣告

朋友

親戚

個人喜好

[V51] 你上一次買漱口水既時候，你認為以下既因素緊唔緊要？

5

1

2

3

4

5

味道

顏色

功用

價錢

包裝

[1 = 非常緊要， 2 = 緊要， 3 = 無所謂

4 = 唔緊要， 5 = 不考慮]

6.D.2 使用模式

[V52] 你每日用漱口水幾次？

- 5
- 有時用
- 1
- 2
- 3
- >3

[V53] 你幾時用漱口水？

- 5
- 刷牙前
- 刷牙後
- 有需要時
- 唔刷牙時
- 其他 -----

6.D.3 漱口水功用

[V54] 你認為點解要用漱口水？
(最主要原因)

- 9
- 無特別理由，例行公事
- 防止蛀牙
- 防止牙周病
- 防止口臭
- 防止牙齒脫落
- 清潔牙齒
- 儀容
- 殺菌
- 其他 -----

[V55] 你對你既漱口水滿唔滿意？

- 5
- 非常滿意
- 滿意
- 普通
- 不滿意
- 非常不滿意

第七部份： 牙線

7.1 選擇因素

[V56] 你用緊邊隻牌子嘅牙線？

5

歐樂B

莊生

畢拿

其他

不知道

[V57] 係邊個推薦你買呢隻牙線呢？

5

牙醫

廣告

朋友

親戚

個人喜好

[V58] 你上一次買牙線嘅時候，你認為以下嘅因素緊唔緊要？

4

	1	2	3	4	5
有/冇蠟	---	---	---	---	---
味道	---	---	---	---	---
(例如：薄荷)					
價錢	---	---	---	---	---
包裝	---	---	---	---	---

[1 = 非常緊要， 2 = 緊要， 3 = 無所謂
4 = 唔緊要， 5 = 不考慮]

7.2 使用模式

[V59] 你幾耐用一次牙線？

5

有時用

每日用

隔日用

每星期一次

每月一次

[V60] 你通常邊個時候用牙線？

4

刷牙前

刷牙後

有需要時

其他 -----

7.3 牙線功用

[V61] 你認為點解要用牙線？
(最主要原因)

10

無特別理由，例行公事

防止蛀牙

防止牙周病

防止口臭

防止牙齒脫落

清除牙漬

清潔牙齒

儀容

殺菌

其他 -----

[V62] 你對你既牙線滿唔滿意？

5

非常滿意

滿意

普通

不滿意

非常不滿意

第八部份： 牙簽

8.1 選擇因素

[V63] 你用緊邊一種牙簽？

4

一般牙簽

專業用牙簽（例如：Interden）

其他

不知道

[V64] 係邊個推薦你買呢隻牙簽呢？

5

牙醫

廣告

朋友

親戚

個人喜好

[V65] 你上一次買牙簽既時候，你認為以下既因素緊唔緊要？

4

	1	2	3	4	5
形狀	---	---	---	---	---
味道	---	---	---	---	---
（例如：薄荷）					
價錢	---	---	---	---	---
包裝	---	---	---	---	---

[1 = 非常緊要， 2 = 緊要， 3 = 無所謂
4 = 唔緊要， 5 = 不考慮]

8.2 使用模式

[V66] 你幾時用牙簪？

4

飯前

飯後

有需要時

其他 -----

7.3 牙簪功用

[V67] 你認為點解要用牙簪？
(最主要原因)

10

無特別理由，例行公事

防止蛀牙

防止牙周病

防止口臭

防止牙齒脫落

清除牙漬

清潔牙齒

儀容

殺菌

其他 -----

[V68] 你對你用緊既牙簪滿唔滿意？

5

非常滿意

滿意

普通

不滿意

非常不滿意

第九部份： 口腔衛生及知識自我評估

[V69] 你認為你接受到有關口腔衛生同埋口腔護理用具既知識足唔足夠？

- 4
非常足夠
足夠
普通
不足夠
非常不足夠

[V70] 你由邊度得到有關既知識呢？
(可選擇一個以上)

- 13
牙醫
政府
學校
消委會 (消費者委員會)
HKDA (香港牙醫學會)
PPDH (菲臘親王牙科醫院)
家長
親戚
朋友
口腔衛生推廣委員會 (香港大學)
傳媒
廣告
其他 -----

[V71] 你認為製造商俾有關產品既資料足唔足夠？

- 6
非常足夠
足夠
普通
不足夠
非常不足夠
不願置評

[V72] 你認為廣告裏面既資料準確性有幾高？

- 6
非常高
高
普通
低
非常低
不願置評

[V73] 你認為你而家既口腔健康點樣？

5
非常好
好
普通
差
非常差

[V74] 你認為你而家駛唔駛睇牙醫？

3
要 -----> 問題 [V73]
唔駛 -----> 第十部份
唔知 -----> 第十部份

[V75] 你認為你要邊一類既治療呢？

11
牙齒檢查
洗牙
補牙
牙套/牙橋
杜牙根
假牙
箍牙
剝牙
口腔衛生指導
氟素/預防性治療
其他 -----

第十部份： 個人資料

最後，由於統計上既需要，想問一的有關你既資料：

[V76] 你對上個次生日係幾多歲？

6

< 18

18 - 24

25 - 34

35 - 44

45 - 54

> 55

[V77] 你既教育程度係

6

未接受過教育/幼稚園

小學

初中

高中/預科

大專（非學位課程）

大專（學位課程）

[V78] 你屋企有幾多人係要返學既呢？

5

1

2

3

4

>4

非常多謝你既幫忙。

唔該你係四月廿五號或者五月二號九點至十二點到
菲臘牙科醫院一樓詢問處隔離，講出你既電話號碼
就可以得到一份紀念品，拜拜。

**Community Health Project
Gp4.6/1992**

QUESTIONNAIRE

[V1] Interviewer's no.:
[V2] Telephone no.:

Section 1 : Self-introduction

Hello, How are you? My name is X, and I'm calling from the faculty of Dentistry, the University of Hong Kong. We are doing a study in "Plaque controlling oral hygiene aids for home-care". We would like you to spare a couple of minutes. the information you provide will be kept strictly confidential. We will give a free package of dental products to you after the survey.

Section 2 : Selection of interviewee

In order to determine whom to be interviewed, could you please tell me who is responsible for buying the dental product?

(If there are several persons who are responsible, " please call the person who had the most recent birthday.")

(If he or she is not at home, " We'll call him/her back some time later, thank you.")

May I speak to that person? (Repeat introduction)

[V3]

[V4] What is your position in the family?

- 1 Housewife
- 2 Head of household
- 3 Oldest child
- 4 Grandparent
- 5 Maid
- 6 Others _____

Section 3 : Classification

[V5] Could you tell me whether you have the following oral hygiene products at home?

Tooth brush	Yes/No
Tooth paste	Yes/No
Mouth rinse	Yes/No
Floss	Yes/No
Toothpick	Yes/No

[V6]	Which of the following items have you brought?	
	Tooth brush	Yes/No
	Tooth paste	Yes/No
	Mouth rinse	Yes/No
	Floss	Yes/No
	Toothpick	Yes/No

[V7]	Which of the following items you are using?	
	Tooth brush	Yes/No
	Tooth paste	Yes/No
	Mouth rinse	Yes/No
	Floss	Yes/No
	Toothpick	Yes/No

[V8] Could you grade the difficulty in buying the following oral hygiene products from the market?

	1	2	3	4	5
Tooth brush	—	—	—	—	—
Tooth paste	—	—	—	—	—
Mouthrinse	—	—	—	—	—
Floss	—	—	—	—	—
Toothpick	—	—	—	—	—

(1 = very easy, 2 = easy, 3 = neutral,
4 = difficult, 5 = very difficult, 6 = don't know)

Section 4 : Tooth brush

4.1 Crtiteria on choice of tooth brush

[V9] Which types of toothbrush do you have?

(More than one choice)

- 1 Ordinary toothbrush
- 2 interdental brush
- 3 single tufted tooth brush

* The following questions in this sub-section apply to ordinary brush only

[V10] Which brand are you using?

- 1 Oral B
- 2 Johnson & Johnson (Reach)
- 3 Colgate
- 4 Butler
- 5 Jordan (V shape morning brush)
- 6 Darlie
- 7 Dr. West
- 8 Wisdom
- 9 Aim (Angle - 3)
- 10 Others
- 11 Don't know

[V11] By whom is your brush recommended?

- 1 Dentist
- 2 Advertisement
- 3 Friends
- 4 Relatives
- 5 Personal preference

[V12] Could you grade the importance of the factors which you considered when you brought the tooth brush last time?

	1	2	3	4	5
1 Head Size	—	—	—	—	—
2 Shape of Head	—	—	—	—	—
3 Colour	—	—	—	—	—
4 Texture of Bristle	—	—	—	—	—
5 Price	—	—	—	—	—
6 Packaging	—	—	—	—	—

(1 = very importance, 2 = importance, 3 = neutral
4 = not importance, 5 = not consider)

4.2 : Pattern of using toothbrush

[V13] How often do you brush your teeth daily?

- | | |
|---|--------------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | sometimes |
| 7 | when in need |

[V14] How often do you change your toothbrush?

- | | |
|---|---------------|
| 1 | < 1 month |
| 2 | 1 - 3 months |
| 3 | 3 - 6 months |
| 4 | 6 - 12 months |
| 5 | > 1 year |

[V15] Under what condition(s) will you change a new toothbrush?

- | | |
|---|-------------------------|
| 1 | Worn out |
| 2 | Mouth not feeling clean |
| 3 | No specific reason |

4.3 : Brushing Function

[V16] Why do you brush your teeth?

- 1 No specific reason, just routine work
- 2 Prevent dental caries
- 3 Prevent Periodontal disease
- 4 Prevent bad breath
- 5 Prevent tooth loss
- 6 Removing staining
- 7 Cleaning the teeth
- 8 Cosmetic reason
- 9 Killing germs
- 10 Others _____

[V17] How satisfied are you with your toothbrush?

- 1 Very satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very dissatisfied

Section 5 : Tooth paste

5.1 : Criteria on choice of toothpaste

[V18] Which brand are you using?

- 1 Colgate
- 2 Oral B
- 3 Crest
- 4 Darlie
- 5 Sensodyne
- 6 Lion
- 7 Maxim
- 8 Others
- 9 Don't know

[V19] By Whom is your toothpaste recommended?

- 1 Dentist
- 2 Advertisement
- 3 Friends
- 4 Relatives
- 5 Personal preference

[V20] Could you grade the importance of the factors which you considered when you brought the toothpaste last time?

	1	2	3	4	5
1 F- containing	—	—	—	—	—
2 Taste	—	—	—	—	—
3 Clean or white enough	—	—	—	—	—
4 For sensitive gum	—	—	—	—	—
5 For sensitive teeth	—	—	—	—	—
6 Packaging	—	—	—	—	—
7 Price	—	—	—	—	—

(1 = very importance, 2 = importance, 3 = neutral
4 = not importance, 5 = not consider)

5.2 : Pattern of using toothpaste

[V21] Do you use toothpaste everytime when you brush your teeth?

- 1 Yes
- 2 No
- 3 Don't know

[V22] Do you think the amount of toothpaste will affect the brushing efficency?

- 1 Will be
- 2 Will not be
- 3 May be
- 4 Don't know

5.3 : Function of toothpaste

[V23] Why do you use toothpaste?

- 1 No specific reason, just routine work
- 2 Prevent dental caries
- 3 Prevent Periodontal disease
- 4 Prevent bad breath
- 5 Prevent tooth loss
- 6 Removing staining
- 7 Cleaning the teeth
- 8 Cosmetic reason
- 9 Killing germs
- 10 Others _____

[V24] How satisfied are you with your toothpaste?

- 1 Very satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very dissatisfied

Section 6 : Mouthrinse

[V25] Which brand are you using?

- 1 Johnson & Johnson - F rinse
- 2 Johnson & Johnson - CPC
- 3 Colgate - F rinse
- 4 Colgate - Plax (CPC)
- 5 Listerine
- 6 Corsodyl
- 7 Others
- 8 Don't know

***6.F.1 Criteria on choice of F~ mouthrinse**

[V26] By whom are your mouthrinse recommended?

- 1 Dentist
- 2 Advertisement
- 3 Friends
- 4 Relatives
- 5 Personal preference

[V27] Could you grade the importance of the factors which you considered when you brought the mouthrinse last time?

		1	2	3	4	5
1	Taste	—	—	—	—	—
2	Colour	—	—	—	—	—
3	Function	—	—	—	—	—
4	Price	—	—	—	—	—
5	Packaging	—	—	—	—	—

(1 = very importance, 2 = importance, 3 = neutral
4 = not importance, 5 = not consider)

6.F.2 : Pattern of using F~ mouthrinse

[V28] How often do you use mouthrinse daily?

- 1 Sometimes
- 2 1
- 3 2
- 4 3
- 5 > 3

[V29] When do you use mouthrinse?

- 1 Pre-brushing
- 2 Post-brushing
- 3 When in need
- 4 When no brushing
- 5 Others _____

6.F.3 Function of F~ Mouthrinse

[V30] Why do you use mouthrinse?

- 1 No specific reason, just routine work
- 2 Prevent dental caries
- 3 Prevent Periodontal disease
- 4 Prevent bad breath
- 5 Prevent tooth loss
- 6 Removing staining
- 7 Cleaning the teeth
- 8 Cosmetic reason
- 9 Killing germs
- 10 Others _____

[V31] How satisfied are you with the mouthrinse?

- 1 Very satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very dissatisfied

*6.C.1 Criteria on choice of CPC mouthrinse

[V32] By whom are your mouthrinse recommended?

- 1 Dentist
- 2 Advertisement
- 3 Friends
- 4 Relatives
- 5 Personal preference

[V33] Could you grade the importance of the factors which you considered when you brought the mouthrinse last time?

		1	2	3	4	5
1	Taste	—	—	—	—	—
2	Colour	—	—	—	—	—
3	Function	—	—	—	—	—
4	Price	—	—	—	—	—
5	Packaging	—	—	—	—	—

(1 = very importance, 2 = importance, 3 = neutral
4 = not importance, 5 = not consider)

6.C.2 : Pattern of using CPC mouthrinse

[V34] How often do you use mouthrinse daily?

- 1 Sometimes
- 2 1
- 3 2
- 4 3
- 5 > 3

[V35] When do you use mouthrinse?

- 1 Pre-brushing
- 2 Post-brushing
- 3 When in need
- 4 When no brushing
- 5 Others _____

6.C.3 Function of CPC Mouthrinse

[V36] Why do you use mouthrinse?

- 1 No specific reason, just routine work
- 2 Prevent dental caries
- 3 Prevent Periodontal disease
- 4 Prevent bad breath
- 5 Prevent tooth loss
- 6 Removing staining
- 7 Cleaning the teeth
- 8 Cosmetic reason
- 9 Killing germs
- 10 Others _____

[V37] How satisfied are you with the mouthrinse?

- 1 Very satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very dissatisfied

*6.P.1 Criteria on choice of Plax mouthrinse

[V38] By whom are your mouthrinse recommended?

- 1 Dentist
- 2 Advertisement
- 3 Friends
- 4 Relatives
- 5 Personal preference

[V39] Could you grade the importance of the factors which you considered when you brought the mouthrinse last time?

		1	2	3	4	5
1	Taste	—	—	—	—	—
2	Colour	—	—	—	—	—
3	Function	—	—	—	—	—
4	Price	—	—	—	—	—
5	Packaging	—	—	—	—	—

(1 = very importance, 2 = importance, 3 = neutral
4 = not importance, 5 = not consider)

6.P.2 : Pattern of using Plax mouthrinse

[V40] How often do you use mouthrinse daily?

- 1 Sometimes
- 2 1
- 3 2
- 4 3
- 5 > 3

[V41] When do you use mouthrinse?

- 1 Pre-brushing
- 2 Post-brushing
- 3 When in need
- 4 When no brushing
- 5 Others _____

6.P.3 Function of Plax Mouthrinse

[V42] Why do you use mouthrinse?

- 1 No specific reason, just routine work
- 2 Prevent dental caries
- 3 Prevent Periodontal disease
- 4 Prevent bad breath
- 5 Prevent tooth loss
- 6 Removing staining
- 7 Cleaning the teeth
- 8 Cosmetic reason
- 9 Killing germs
- 10 Others _____

[V43] How satisfied are you with the mouthrinse?

- 1 Very satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very dissatisfied

*6.L.1

Criteria on choice of Listerine mouthrinse

[V44] By whom are your mouthrinse recommended?

- 1 Dentist
- 2 Advertisement
- 3 Friends
- 4 Relatives
- 5 Personal preference

[V45] Could you grade the importance of the factors which you considered when you brought the mouthrinse last time?

	1	2	3	4	5
1 Taste	—	—	—	—	—
2 Colour	—	—	—	—	—
3 Function	—	—	—	—	—
4 Price	—	—	—	—	—
5 Packaging	—	—	—	—	—

(1 = very importance, 2 = importance, 3 = neutral
4 = not importance, 5 = not consider)

6.L.2 : Pattern of using Listerine mouthrinse

[V46] How often do you use mouthrinse daily?

- 1 Sometimes
- 2 1
- 3 2
- 4 3
- 5 > 3

[V47] When do you use mouthrinse?

- 1 Pre-brushing
- 2 Post-brushing
- 3 When in need
- 4 When no brushing
- 5 Others _____

6.L.3 Function of Listerine Mouthrinse

[V48] Why do you use mouthrinse?

- 1 No specific reason, just routine work
- 2 Prevent dental caries
- 3 Prevent Periodontal disease
- 4 Prevent bad breath
- 5 Prevent tooth loss
- 6 Removing staining
- 7 Cleaning the teeth
- 8 Cosmetic reason
- 9 Killing germs
- 10 Others _____

[V49] How satisfied are you with the mouthrinse?

- 1 Very satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very dissatisfied

***6.D.1 Criteria on choice of Corsodyl mouthrinse**

[V50] By whom are your mouthrinse recommended?

- 1 Dentist
- 2 Advertisement
- 3 Friends
- 4 Relatives
- 5 Personal preference

[V51] Could you grade the importance of the factors which you considered when you brought the mouthrinse last time?

		1	2	3	4	5
1	Taste	—	—	—	—	—
2	Colour	—	—	—	—	—
3	Function	—	—	—	—	—
4	Price	—	—	—	—	—
5	Packaging	—	—	—	—	—

(1 = very importance, 2 = importance, 3 = neutral
4 = not importance, 5 = not consider)

6.D.2 : Pattern of using Corsodyl mouthrinse

[V52] How often do you use mouthrinse daily?

- 1 Sometimes
- 2 1
- 3 2
- 4 3
- 5 > 3

[V53] When do you use mouthrinse?

- 1 Pre-brushing
- 2 Post-brushing
- 3 When in need
- 4 When no brushing
- 5 Others _____

6.D.3 Function of Corsodyl Mouthrinse

[V54] Why do you use mouthrinse?

- 1 No specific reason, just routine work
- 2 Prevent dental caries
- 3 Prevent Periodontal disease
- 4 Prevent bad breath
- 5 Prevent tooth loss
- 6 Removing staining
- 7 Cleaning the teeth
- 8 Cosmetic reason
- 9 Killing germs
- 10 Others _____

[V55] How satisfied are you with the mouthrinse?

- 1 Very satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very dissatisfied

Section 7 : Dental Floss

7.1 Criteria on choice of dental floss

[V56] Which brand are you using?

- 1 Oral B
- 2 Johnson & Johnson
- 3 Butler
- 4 Others
- 5 Don't know

[V57] By whom are your dental floss recommended?

- 1 Dentist
- 2 Advertisement
- 3 Friends
- 4 Relatives
- 5 Personal preference

[V58] Could you grade the importance of the factors which you considered when you brought the dental floss last time?

	1	2	3	4	5
1 With/without wax	—	—	—	—	—
2 Taste	—	—	—	—	—
3 Price	—	—	—	—	—
4 Packaging	—	—	—	—	—

(1 = very importance, 2 = importance, 3 = neutral

4 = not importance, 5 = not consider)

7.2 : Pattern of using dental floss

[V59] How often do you floss?

- 1 Sometimes
- 2 Daily
- 3 Once a couple of days
- 4 Once a week
- 5 Once a month

[V60] When do you floss?

- 1 Pre-brushing
- 2 Post-brushing
- 3 When in need
- 4 Others _____

7.3 : Function of dental floss

[V61] Why do you use dental floss?

- 1 No specific reason, just routine work
- 2 Prevent dental caries
- 3 Prevent Periodontal disease
- 4 Prevent bad breath
- 5 Prevent tooth loss
- 6 Removing staining
- 7 Cleaning the teeth
- 8 Cosmetic reason
- 9 Killing germs
- 10 Others _____

[V62] How satisfied are you with your dental floss?

- 1 Very satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very dissatisfied

Section 8 : Tooth pick

8.1 : Criteria on choice of dental picks

[V63] Which brand are you using?

- 1 Conventional
- 2 Professional eg. interdents
- 3 Others
- 4 Don't know

[V64] By whom are your tooth picks recommended?

- 1 Dentist
- 2 Advertisement
- 3 Friends
- 4 Relatives
- 5 Personal preference

[V65] Could you grade the importance of the factors which you considered when you brought the tooth picks last time?

	1	2	3	4	5
1 Shape	—	—	—	—	—
2 Taste	—	—	—	—	—
3 Price	—	—	—	—	—
4 Packaging	—	—	—	—	—

(1 = very importance, 2 = importance, 3 = neutral
4 = not importance, 5 = not consider)

8.2 : Pattern of using tooth picks

[V66] When do you use tooth picks?

- 1 Before meal
- 2 After meal
- 3 When in need
- 4 Others

8.3 : Function of Tooth picks

[V67] Why do you use tooth picks?

- 1 No specific reason, just routine work
- 2 Prevent dental caries
- 3 Prevent Periodontal disease
- 4 Prevent bad breath
- 5 Prevent tooth loss
- 6 Removing staining
- 7 Cleaning the teeth
- 8 Cosmetic reason
- 9 Killing germs
- 10 Others _____

[V68] How satisfied are you with your tooth picks?

- 1 Very satisfied
- 2 Satisfied
- 3 Neutral
- 4 Dissatisfied
- 5 Very dissatisfied

Section 9 : Self evaluation of his/her own oral health & knowledge

[V69] How well informed do you feel concerning oral hygiene and oral hygiene products?

- 1 Very sufficient**
- 2 Sufficient**
- 3 Ordinary**
- 4 insufficient**
- 5 very insufficient**

[V70] From where do you usually receive information about oral hygiene and oral hygiene products?

- 1 Dentist**
- 2 Government**
- 3 School education**
- 4 Consumer Council**
- 5 HKDA**
- 6 PPDH**
- 7 Parents**
- 8 Relatives**
- 9 Friends**
- 10 Dental Public Health Committee, HKUSU**
- 11 Mass Media**
- 12 Advertisements**
- 13 Others**

[V71] Do you think the producers present enough information about dental health issues in general?

- 1 Very sufficient**
- 2 Sufficient**
- 3 Ordinary**
- 4 insufficient**
- 5 very insufficient**

[V72] How do you think the reliability of the information about dental health issues provided in the advertisement?

- 1 Very high**
- 2 High**
- 3 Ordinary**
- 4 Low**
- 5 Very low**
- 6 No comment**

[V73] How do you rate your own oral health?

- 1 Very good
- 2 Good
- 3 Ordinary
- 4 Bad
- 5 Very bad

[V74] Do you need to see a dentist?

- 1 Yes -----> Go to [V75]
- 2 No -----> Go to section 10
- 3 Don't know -----> Go to section 10

[V75] What dental treatment do you need?

- 1 Check-up
- 2 Scaling
- 3 Restoration
- 4 Crown & Bridge
- 5 Root Canal therapy
- 6 Denture
- 7 Orthodontics
- 8 Extraction
- 9 OHI
- 10 F~ / preventive treatment
- 11 Others _____

Section 10 : Personal Particulars

Finally, for our statistical purposes, could you please tell me a few personal particulars:

[V76] How old were you at your last birthday?

- 1 < 18
- 2 18 - 24
- 3 25 - 34
- 4 35 - 44
- 5 45 - 54
- 6 > 55

[V77] Which education do you have?

- 1 No schooling/kindergarten
- 2 Primary/'Si- shu'
- 3 Lower secondary
- 4 Upper secondary/matriculation
- 5 Post-secondary (non-degree course)
- 6 Tertiary education (degree course)

[V78] How many school age children are there in the household?

- 1 1
- 2 2
- 3 3
- 4 4
- 5 >4

Thank you very much for your assistance. The free package of dental products can be collected on 1/F of Prince Philip Dental Hospital, next to the reception, on Monday to Friday from 8:30 am to 5:00 pm.

DISCUSSION FRAMEWORK OF INTERVIEW

Introduction

1. Introduction of our project
2. About the company
3. Range of dental products produced
 - dental products available in market
 - any new dental products
 - request of samples

Scientific Supports on the Products (request copy of papers)

1. Any supporting articles
2. Any researches done by the company

Promotions

1. Different ways on promoting the products
2. Ways of investments for their products
 - criteria of choice
 - e.g. newspaper, magazine, advertisement on television
 - most effective way
3. Scientific support on the information provided in the advertisement
4. Discussion on the advertisement of different companies

Education

Instructions provided

- language available
- detail of instruction
- pamphlets, posters
- oral information provided
- information on how to choose the products

Marketing

1. Target group
2. Sales volume: especially on the present status
3. How to set the price
4. Distribution of the products
5. Rank

Sponsorship

Request sponsorship

- either financially or products

COLGATE

Introduction

Colgate company start market since 1959 in Hong Kong. The products are directly imported from overseas: USA, Germany, Australia and U.K. Products which put into market are approved by American Dental Association.

Colgate has many dental products in Hong Kong market, for instance toothbrush, toothpaste include gum protection and anti-tar tar, and mouthrinse. Recently colgate took over the Plax company. Furthermore, Colgate has large share of the Darlie toothpaste company.

Scientific Supports on Product

Colgate has its own laboratory in different place of manufacture. Most of their product have supporting journals or researches.

Promotion

Colgate promotes its products mainly through the television especially the Chinese channels. Other media include video, newspaper and magazine.

Education

Colgate provided oral health education via various means, and gave adequate information on package. The languages used on the packages are both in English and Chinese. However most package is in English. The Package in English has more sales volume.

Marketing

Colgate claimed themselves as market leader of toothpaste and share about 80-90% of toothpaste market. The price setting is depending on competitor and inflation. The distribution of the products by three means, chain shop, wholesale and salesman. Products are readily available in the market. Sales volume can not be exposed to the public.

JOHNSON AND JOHNSON

Introduction

Johnson and Johnson is an large international company. They produce home care products e.g. baby products and sanitary protective and oral hygiene products. The dental products of Johnson and Johnson now available in Hong Kong markets are toothbrush, mouthrinse (fluoride and CPC) and floss (waxed, unwaxed, mint).

Scientific Supports on Product

The design of the products based on the scientific base.

Promotion

Johnson and Johnson promotes its products mainly through television especially the Chinese channels. Also advertisement through magazine to give more information.

Education

Johnson and Johnson provides oral health information through pamphlet, talk, video tape and poster. Instruction provided on the package is adequate and the languages used are both Chinese and English.

Marketing

Johnson and Johnson is the market leader of toothbrush and floss, it is at second place of the mouthrinse market. Johnson and Johnson shares about 26% of the toothbrush market and 60% of the floss market.

The price setting is depending on costing and competitor. The products of Johnson and Johnson are well distributed, they are available in supermarket dispensary store, Department store and even some small store. Sales volume can not be exposed to the public.

ORAL B

Introduction

Oral B started in 1940's, a dentist in USA made the toothbrush and distributed to his colleagues. Later he used up all his money to construct the toothbrush. The dentists then recommend this kind of brush to their customers.

Oral B dental products including toothbrush, toothpaste, mouthrinse, interdental cleansing products such as dental floss, super floss and interdental brush.

Oral B company has various different kinds of toothbrush for different purpose, Junior types for small children, P₃₀₋₆₀ for adolescent and adult. The indicator toothbrush has special design to show the degree of wearing. Travelling toothbrush, angled toothbrush, toothbrush for art and sport, toothbrush for orthodontic and sensitive are also the Oral B products.

Oral B produce two kind of toothpaste one is for sensitive teeth and the other is for tooth and gum care.

The interdental cleansing products of Oral B includes dental floss (waxed and unwaxed, fluoride containing dental floss and mint flavoured dental floss), dental tape, superfloss and interdental brush.

Mouthrinse of Oral B is an antiseptic type used for oral wound cleansing.

Scientific Supports on Product

Oral B company has done research on its products and the research were done by the University and its own laboratories. Also Oral B did some surveys through SRH.

Promotion

Oral B company promotes its products mainly towards the dentists. However, they start the advertisement, mainly toothbrush in mass media two years ago in order to further promote the products.

Education

Oral B educates the public by posters and pamphlets about oral hygiene and instructions. Some product instructions provided on the package with Chinese languages.

Marketing

The target group of Oral B company is the high educational level and middle class. Oral B now is the market leader of toothbrush. The distribution of Oral B product is through the agency and the products are available in Supermarket and Dispensary Store. Sales volume cannot be exposed to the public.

BUTLER

Introduction

Butler started market since 1986 in Hong Kong. Jardine Danby was the agent before and now Global is the agent. The products of Butler available in Hong Kong are divided into two categories, the personal and the professional products. Toothbrush, floss, floss holder, interdental brush and toothpaste are the products for public. Fluoride gel and dentine desensitizer are for professional.

Scientific Supports on Product

All products were scientific supported. The researches performed by Butler itself and then approved by American Dental Association.

Promotion

Butler promotes its products by advertisement in "Asian Dental News". However, the advertisement is from the main company directly. No other commercial advertisement now.

Education

Butler now has no oral health education to public but they are planning to have poster soon. The instructions on the package are adequate and the language used is English only.

Marketing

In Hong Kong, Butler share about 10% of market according to survey done by CRC and about 50% among professional market. The distribution of product to profession through the Prince Philip Dental Hospital, government hospitals, private hospitals and private practice. The products directly distributed to market and available to dispensary, department store e.g. Wing On and Mannings. Sales volume can not be exposed to the public.

SENSODYNE

Refused to have an interview.

B & L

Refused to have an interview.



University of Hong Kong

Faculty of Dentistry

Periodontology and Public Health
Prof W I R Davies

The Prince Philip Dental Hospital, Hospital Road, Hong Kong.

Our Ref: CHP92/GP6/01/92

30 January 1992

Mr. Mark Cheung
Professional Relations Manager
Oral B Laboratories
c/o Gillette Far East Trading Ltd.
Unit 2-4, 16/F Westlands Centre
20 Westlands Road
Quarry Bay
Hong Kong

Dear Mr. Cheung,

Re: Home Care Plaque Controlling Dental Products

We are a group of final year students of the Faculty of Dentistry, The University of Hong Kong. As part of our curriculum we have to conduct a project concerning dental public health in Hong Kong.

After intensive discussion, we decided to carry out a survey on the home care plaque controlling dental products.

It is our sincere hope that you will meet us to have an interview on

- various type of oral hygiene aids provided by your company
- marketing (sales volume)
- distribution
- surveying (any other research)

Your information provided on this matter will be of paramount importance to our project.

It would be grateful if you could arrange an interview in late February. Our project is closely supervised by our teacher Dr. Schwarz. Thank you for your kind attention.

Yours sincerely,

Mr. Lee Dae Hyun
Co-ordinator
Group 4.6

Dr. E. Schwarz (Project Supervisor)
Reader
Periodontology and Public Health